



**Relationships between Shyness and Language
Development in a Sample of Preschool Children
in Saudi Arabia**

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**This thesis is submitted in candidature for the degree of
Doctor of Philosophy
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**IN THE NAME OF ALLAH, MOST
GRACIOUS, MOST MERCIFUL**

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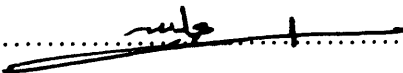
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DEDICATION

With my love and deepest appreciation

To my beloved family who are here with me in Cardiff

***And those who are in Saudi Arabia who suffer from family
separation because of my study***

***To my beloved husband who gave me unlimited love and
support before and during working on this study***

***To my oldest son Thamir who left his own life at his home
country and came with me to UK***

Who has shared with me suffering and difficult times

To my sons Yasser and Hatem

To my daughter Raghad

***To the soul of my beloved father who breathed his last while
he was waiting for my return back home.***

Who died before he could witness my ambitious achievement

***To the soul of my beloved mother who died while still wishing
to see me happy***

***To my dear father and mother may God rest their souls
peacefully in Heaven.***

***To my brothers, sisters and their children who endured my
absence.***

Abstract

This thesis investigated the relationship between shyness and the language development of a sample of preschool children in the Kingdom of Saudi Arabia. The sample consisted of 108 preschool children enrolled in eight preschool centres in Riyadh City. The method was a comparative design involving shy and non-shy children (52 shy, 56 non-shy) ranging in age from 5 to 6 years old selected by their teachers. All the children were of Saudi nationality and in final year classes of preschool. All preschools were private, the socioeconomic status was homogeneous and from middle to upper class. The trait shyness of children was measured by means of a teachers' and parents' shyness checklist. Three measures were used to examine the language development of children: a standardized test of receptive vocabulary, a systematic measure of children's speech in two "Show and Tell" sessions, and observation of children's verbal behaviour during two free play sessions. Shy children obtained lower scores in the vocabulary test and they were more reticent in these two school settings. Teachers' shyness scores predicted children's verbal behaviour in "Show and Tell" and during free play sessions over and above any differences between shy and non-shy children in vocabulary test scores. Vocabulary scores did not mediate or moderate the relations between shyness and observed verbal behaviours in these sessions.

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Chapter One

Introduction

1.1 Introduction

One of the many challenges facing contemporary society is the increasing incidence of behavioural, emotional, and educational problems experienced by children and adults. Although it has not attracted much attention relative to the attention paid to externalizing problems, shyness is a significant problem that interferes with educational processes and social interactions. Shyness can affect children's lives in many different ways, and these effects can last throughout their lives (Fordham & Stevenson-Hinde, 1999). Shy children may be at risk of suffering depression, fear, and feeling of anxiety during their early years in schools, and emotional adjustment problems can be also experienced during adolescence (Hirshfeld et al., 1992; Schmidt, 1999; Rubin, 1993). In addition shy children have been shown to be less effective in their use of language in social situations. Coplan and Armer (2005) reported that the most common characteristic of shyness is the difficulty with verbal communication and restraint of speech that can be identified in early years. Shy children have also been shown to have lower expressive and in some studies receptive language skills in comparison with non-shy children (Van Kleeck & Street, 1982; Evans, 1993, 1996; Spere et al., 2004).

A considerable body of research has emerged demonstrating that shyness is a highly prevalent phenomenon in children and adults. Various studies show that nearly half of all people consider themselves to be shy. For example, in 1977, Stanford University psychologist Philip Zimbardo surveyed 5000 people in trying to better understand the phenomenon of shyness. He found that around 80 percent of those questioned reported that they had experienced shyness at some point in their lives and

that 40 percent considered themselves to be shy. In Saudi Arabia there are no studies surveying shyness in children or adults. There has been very little attention paid to shyness. The current study is one of the few studies carried out in Saudi Arabia regarding shyness in general and may be considered the first study concerning children's shyness. The lack of research into shyness in Saudi Arabia may be because those who suffer from shyness do not usually seek help because they are afraid of embarrassment. In addition, some people in Saudi Arabian society do not acknowledge shyness as a problem. This is perhaps due to the overlap between the two concepts of shyness in Arabic *Khajal* and *Haya*. *Khajal* is similar in meaning to shyness in English which is an undesirable quality. *Haya* is the more positive quality, which carries with it the meaning of modesty (see section 1.5 in this chapter). Children emulate and learn *Haya* from their parents when they see them act politely in the presence of older relatives such as grandparents, and elderly people. Parents often encourage their children to behave politely and discourage bad behaviour, or the parents praise *Haya* behaviour especially when they go out with their children and interact with strangers. In some cases the parents and/or teachers over-control their children's behaviour, so that the child's *Haya* may change into *Khajal* (shyness). On the other hand, shyness is not considered a problem in schools in Saudi Arabia because quiet students are desirable in a traditional curriculum. In this curriculum the teacher presents information as lessons and students are expected to listen and remain quiet. Until recently a similar approach was used in preschool centres, where teachers relied upon "dry" teaching of reading and writing. Children were not engaged in learning activities, indeed they were not free to talk or move from their chairs. Currently this situation has changed after the establishment of a new curriculum called *The Developed Curriculum* for Early Childhood Education (Samadi & Marwa, 1991). This curriculum, based on educational

theories, emphasizes an interactive self-learning process for preschoolers. Children are expected to be more active, talkative, mobile, sociable and interactive with peers, teachers and learning materials. Such classroom settings may elicit shyness. The problem for the shy child becomes more apparent as the child is inhibited from participating in learning, class discussion and social activities.

During her visits to preschool centres as a students' training supervisor at the Early Childhood Education Department at King Saud University the present researcher noticed that many preschool teachers became overly concerned with their children's shyness. They complained about children who were reticent and did not participate in class discussions and social activities. Teachers have expressed their concern that shyness could hinder the benefits of the new curriculum. In addition, the researcher also noticed during her work as a university lecturer that many students were suffering from shyness, a problem that affected their studies. Shy students were quiet, fearful of contributing to class discussions and some sat in the back of the classroom. The most important observation the researcher made was that some of her brightest students were getting low marks although they used to do well in writing tests. Their ability may have been under-estimated due to their inability to participate in group discussions. The students were also required to make presentations and although they had all the relevant knowledge and rehearsed their presentations they did not perform as well as non-shy students. Some of them, for example, asked the researcher if they could do their presentation in an isolated place instead of in the class, because they were too shy to present in front of other students. Crozier (1997) reported that presenting seminars can cause great anxiety because it is an evaluative situation that requires students to speak academically in the presence of other students and a tutor.

The researcher decided to study this subject because she wanted to understand shyness more completely. The researcher hoped to draw attention to children's shyness in order to help teachers and parents become more understanding, sympathetic and able to help children overcome their shyness and interact more effectively with others. The main concern in this study is the influence of shyness on the language development (specifically vocabulary and the verbal behaviour) of preschool children, age 5 to 6 years, and to focus on whether their language skills – vocabulary scores – predict their verbal behaviour in specific preschool settings. The study concern is represented in the following study questions.

1.2 Questions of the Study

The following questions were addressed by the researcher:

- 1- Are there any differences between shy and non-shy children in their language development?
- 2- Do children's vocabulary scores predict their verbal behaviour in "Show and Tell" and free play sessions in preschool?

1.3 Statement of the Problem

The importance of studying shyness of preschool children should not be underestimated as it is essential to provide a healthy atmosphere for children at this stage to avoid social problems in the future. Children develop in a social world, engaging in many types of relationships. Through social interactions with family members at home and with peers at school, children encounter a variety of social and linguistic experiences.

Psychologists and speech communicators have been focusing a great deal of research attention on shyness (e.g., Jones, Cheek, & Briggs, 1986; Daly et al., 1997;

Crozier, 2000; Crozier & Alden, 2001). Longitudinal studies summarized by Rubin et al. (2003), suggested links between shyness and behavioural inhibition, social withdrawal in early childhood, feelings of insecurity, negative self-perceptions, and dependency in late childhood. Shyness was also, from middle childhood to early adolescence, found to be associated with peer rejection, victimization and internalizing difficulties.

In addition, the literature has provided evidence that shyness has an impact on children's language development, particularly on the duration of their conversations. Asendorpf and Meier (1993), for example, found that shy children spend less time in conversation than do their sociable peers. Evans (1987) recorded the language of children during 'sharing time' sessions in kindergarten classrooms, where individual children take turns to tell the teacher and classmates about things they have done or seen. Evans found that shy children not only spoke fewer words than their talkative peers, but also she found qualitative differences in their speech. Shy children introduced fewer topics, and spoke fewer words and made shorter utterances about each topic, spoke more often about objects in the "here and now" and rarely told narratives or described absent objects. Moreover, Van Kleeck and Street (1982) found that the two reticent girls they studied used less complicated vocabulary and fewer complex sentences than two talkative peers and had less knowledge of language structures. Perhaps the existence of such language difficulties could make it more difficult for a shy child to communicate with others (Evans, 1993), which could lead to isolation and maladaptive adjustments.

The first goal of this research was to test whether this would also be the case in Saudi Arabia. Little research has examined shy children's use of language in natural

school sittings (Evans, 1993). Specifically it is not known whether the poorer performance of shy children on tests of vocabulary contributes to reticence in natural settings.

An overview of previous research revealed that many studies had investigated the relationship between shyness and vocabulary test scores, the relationship between shyness and children's speech in natural settings, and the relationship between shyness and verbal behaviour during free play. No previous study has examined the three relationships in one study simultaneously. The present study applied three measures to test these relationships: a test of receptive vocabulary, measures of children's speech in two "Show and Tell" sessions, and measures of children's verbal behaviour during two free play sessions. Moreover, the study examined the contribution of shyness scores and vocabulary scores to the prediction of the verbal behaviour of children in the two sessions of "Show and Tell" and free play and whether vocabulary has a mediating effect on the relations between shyness and verbal behaviour.

Despite the lack of research related to shyness in Saudi Arabia the recent changes that have taken place in the early childhood education curriculum contributed to make problems associated with children's shyness more apparent. This study concentrates on problems in language development of shy children. Great attention should be given to identifying these problems in order to help children to overcome their shyness and develop and learn more naturally.

This study will be a reference point to supplement the theoretical basis of psychological educational work in the field of early childhood in Saudi Arabia. It will raise awareness amongst educators and contribute to establishing an approach that acknowledges and effectively addresses children's shyness by assessing their abilities

and determining the adequate level of support needed. Subsequently, the research problem has been defined to investigate “The Relationship between Shyness in Children and their Language Development in a Sample of Preschool Children in Saudi Arabia”. This investigation intended to achieve the aims set out in the following section.

1.4 Aims of the Study

This study aims to identify the relationship between shyness and language development in a sample of 5 - 6 year old children in the Kingdom of Saudi Arabia, in an attempt to investigate and understand the nature of the verbal behaviour of shy and non-shy children. The general aims of the study are as following:

- 1) To draw the attention of parents, teachers and policy makers in Saudi Arabia to the importance of shyness as a problem that could influence children’s learning and well being.
- 2) To illustrate the influence of shyness on some aspects of children’s language development in Saudi Arabia through the achievement of the following secondary aims:
 - a) To compare the performance of shy children and non-shy children on a standardized test of receptive vocabulary.
 - b) To study the differences between shy children and non-shy children in their verbal behaviour in “Show and Tell” and during free play sessions.
 - c) To predict the verbal behaviour of shy and non-shy children in these sessions from their scores in the vocabulary test.
- 3) To consider the implications of the findings of this research for future theoretical and practical application.
- 4) To contribute to the field of research on children in general and on early childhood education in Saudi Arabia in particular.

1.5 The Concept of Shyness in the Arabic Language

As this research was conducted in an Arabic country, it is necessary to identify the Arab definitions of shyness in order to ensure the consistent meaning of shyness in English and Arabic. There are two words in Arabic for shyness, *Haya* and *Khajal*. Sometimes these words are used interchangeably, although there is a significant difference between their meanings. Arab authors report consistent definitions of *Haya*. Al-Ghazaly (1973), for example, reported that *Haya* is the rejection of doing or saying what is bad and immoral. It has a more positive quality and refers to desirable and appropriate behaviour, for example, the way in which children should respectfully act towards teachers, parents, grandparents and the elderly or the way in which a woman conducts herself in the company of unfamiliar men. *Haya* is the traditional Arabic meanings of shyness which discourages inappropriate behaviour and advocates appropriateness. *Haya* is a desirable trait as it is an indicator of one's purity, values and good manners (Al-Ghazaly, 1973). Religious teachings emphasize the importance of having *Haya* as a part of one's faith. Prophet Mohammed (Peace and blessings be upon him) said, "*Faith consists of more than sixty branches (i.e. parts) and Haya is a part of faith*" (Khan, 1997, volume 1, p. 59) and he said also, "*Haya does not bring anything except good*" (Khan, 1997, volume 8, p. 84). This sense is perhaps more relevant to shyness in its English traditional meanings of modesty and good manners.

In contrast *Khajal* corresponds more closely to the English definition of shyness as an undesirable quality which refers to a sense of discomfort in social situations (Crozier, 2001a), where someone is unable to interact effectively and appropriately in the presence of others, as evident, for example, in responses to the Stanford Shyness Survey made by English speaking Americans (Zimbardo, 1977).

Khajal is considered in this study to be similar to the English definition of shyness. Arab authors also provide *Khajal* definitions that are consistent with English definitions of shyness, for example, Al-Dereni (not dated) defined *Khajal* as a tendency to avoid social interactions, and Al-Saied (1956) defined it as an affective state associated with fear in social situations.

In order to avoid any confusion between *Khajal* and *Haya* by teachers when rating children in their class as shy and non-shy the researcher met with the class teachers in every pre-school centre to discuss their understanding of shyness in the light of the nine items from the teachers' shyness checklist used in the present study (see the methodology chapter) and other explanations from the psychological literature.

Before reviewing the literature on shyness the following chapter locates this study within the education system in the Kingdom of Saudi Arabia.

Chapter Two

The Saudi Arabian Context

2.1 Introduction

The purpose of this chapter is to place the study in context in terms of its location in Saudi Arabia as a non-western country. This is because factors that affect the same characteristic of the trait may differ from culture to another. To clarify and locate the present study, it is useful to describe society in which the research is based. This includes the development of the country, and the past and the current state of the education system in general and preschool education in particular.

2.2 The Context of the Study: Kingdom of Saudi Arabia

2.2.1 General and Location

Saudi Arabia is a large developing country in the Middle East. It comprises almost four-fifths of the Arabian Peninsula in southwest Asia, at the crossroads of Europe, Asia and Africa; extending from the Red Sea in the west to the Arabian Gulf in the east. It is bordered to the north by Jordan, Iraq and Kuwait, to the south, by Yemen and Oman, to the east by the United Arab Emirates, Qatar and Bahrain and by the Red Sea to the west. Saudi Arabia occupies 829,995 square miles (2,150,000 square kilometres), which represents an area approximately one-third the size of the continental United States (Abdrabboo, 1984). As of the 2004 census, the population of Saudi Arabia is estimated to be 22.7 million, including about 6 million expatriates (Royal Embassy of Saudi Arabia, 2006a). The capital city of Riyadh is located in the middle of the country. The Kingdom of Saudi Arabia occupies a distinguished position in the Islamic world in that it is the home of the two Islamic holy cities of Makkah and Madinah.

2.2.2 Geography and Climate

Saudi Arabia has five main regions which vary in their geography, climate, the traditional social organization and the people's accent. The geography includes fairly barren and harsh land, with salt flats, gravel plains and sand deserts. There are a few man-made lakes but no permanent streams. In the south, there is the Rub Al-Khali (Empty Quarter), the largest sand desert in the world; and to the southwest there are mountain ranges of over 9,000 feet (2,740 metres).

The climate is also varied; from June through August, the temperature reaches over 45 Celsius at midday in the desert, while humidity in coastal regions can reach up to 100 percent. Elsewhere it is mild, with possible winter temperatures in the northern and central regions dropping below freezing. Rainfall ranges from none at all for up to 10 years in the Rub Al-Khali desert, to 20 inches a year in the mountains of Asir Province (Royal Embassy of Saudi Arabia, 2006a).

The regions in Saudi Arabia are (1) the Hijaz region in the western part of Saudi Arabia along the Red Sea which contains the holy cities of Makkah and Madinah, the port city of Jeddah and the summer capital of Al-Taif; (2) Najed region in the middle of the country where the capital city of Riyadh is located as well as several agricultural cities; (3) The eastern region which is located on the Arabian Gulf, where oil was first discovered. Damam and Kuber are the main cities together with Dahran and Jubil, the two industrial cities; (4) Asseer is the southern region which contains high mountains and deep valleys. It is the tourist region of Saudi Arabia due to its pleasant weather in the summer (cool and rainy) and winter (temperate). Its main city is Abha; (5) the northern region where the main cities are Tabuk and Al-Juff which are located in the busy trade route between the Kingdom, other Arab countries and Europe.

2.2.3 Politics

Modern Saudi Arabia was founded and given its name “Kingdom of Saudi Arabia” by King Abdulaziz Bin Abdulrahman Al-Saud in 1932. The harsh terrain and severe climate of the country discouraged great colonial powers from attempting to penetrate it. Before 1924 it was occupied by city dwellers and nomadic tribes, fighting each other. In 1924 King Abdulaziz Bin Abdulrahman Al-Saud achieved its unification under Islamic law (Abdulwassie, 1970, cited by Al-Tamimi, 2002).

The political system in the Kingdom of Saudi Arabia is a monarchic system headed by a King chosen by a council of the royal family. The King holds the position of Prime Minister and is Commander in Chief of the Armed Forces. A Council of Ministers is an essential instrument of the government in Saudi Arabia. It is the executive and legislative power presided over by the King. The Consultative Council (Majlis Al-Shura), a relatively new body, was established at the end of 1993. Its main goals are to enhance the efficiency of administration and development in the regions of the Kingdom, to protect security and to guarantee the rights of citizens and freedom in the framework of Shariaa (Islamic law). It aims to interpret laws, oversee the working of government, suggest policies and recommend plans to improve and develop the country (Alsouhem, 1996).

2.2.4 Language and Religion

All citizens of the Kingdom of Saudi Arabia are Muslims and Islam is both their religion and lifestyle. Thus, all regulations and practices follow the rulings of Islam. All people in Saudi Arabia speak Arabic and it is considered the official language of the country. It is the language in which the holy book – the Koran – was written. It is the language of learning and teaching in all levels of educational institutions in the

Kingdom except in the medical colleges. English is the second language of many Saudi citizens. It is the working language of business and medical sectors (Ministry of Information in Saudi Arabia, 1996a).

2.2.5 Economy

The discovery of oil in the 1930 in Saudi Arabia has led the country to experience remarkable growth over a short period. This has made its people enjoy a high standard of living based on an increasingly varied economy and have access to the most modern facilities and services. The Saudi economy has grown through an emphasis on strengthening the productive capacity in the fields of commerce; industry and electricity; oil; agriculture; construction; and banks. Policies adopted in the 1960s and throughout successive Five-Year Development Plans led to a substantial degree of success in building a diverse economic base, an economy progressively less dependent on oil and featuring dramatic growth in all sectors. There is no doubt that economic factors affect the general development in any state and the development of its education systems in particular such as the case of Saudi Arabia as presented in the following section (Ministry of Information in Saudi Arabia, 1996b).

2.3 Education in the Kingdom of Saudi Arabia

The development of modern education in the Kingdom of Saudi Arabia took place in two stages. The first stage was between 1924 and 1953 while the second stage began when the Ministry of Education was established in 1953 until the present. However, before these two stages the education in Saudi Arabia as in all of the Arabian Peninsula was a traditional one. Traditional education in Saudi Arabia served only a religious function. It typically took place in Mosques or in study circles known as “Halaga”. In a “Halaga” students studied religion, Arabic, and numbers. Another type of

traditional education was known as 'Al-Kuttab', which was a small school with an educated man or woman who taught boys or girls to read and write and basic mathematic lessons in addition to practical training in social life (Al-Sonbole et al., 2004).

In the cities of Makkah, Jeddah and Madina in the western region some private elementary and secondary education was present, which included teaching mathematics and science subjects (Al-Ghamidi, 1982).

The first stage of education in Saudi Arabia was established when King Abdulaziz unified the Kingdom of Saudi Arabia in 1924. The first step was the establishment of the Directorate of General Education in the same year (1924). It marked the beginning of the formal education system, and offered free but not compulsory education. Students were expected to study four educational levels: elementary (6 years), intermediate (3 years), secondary school (3 years), and higher education (4 years) at the ages of 6, 13, 16 and 18 years old respectively (Abduallah, 1973). The first secondary state school was established in order to train teachers for the new primary schools in 1927. Some students who finished this school were sent to Egypt to study at university level. The Directorate of General Education was not able to expand public education, because of hardship in the country. However, economic, political and social changes removed this barrier (Al-Huquil, 1981).

The most significant step in the development of education in Saudi Arabia was the change of the Directorate of General Education to the Ministry of Education in 1953 which is considered as the start of the second stage in its development. Modern education began in this stage and developed rapidly. The number of schools increased continually from 1953 until now. In that year, there were only 210 schools with 38,317 students (Al-Sonbole et al., 2004), but by 1993 the number had increased to 8,228

schools with 1,486,295 students (Ministry of Education in Saudi Arabia, 1993). The recent statistical information (2004-2005) reported that the number of schools rose to 30,670 schools with 217,688 classes and 4,653,532 students (Ministry of Education in Saudi Arabia, 2004-2005).

The Ministry of Education opened the schools to every citizen. The system provides students with free education, books and health services, and the schools with facilities, instructional materials, and meets the needs of school administrators and teachers regarding salaries, pensions and promotion (Ministry of Education in Saudi Arabia, 1986).

While the Ministry of Education is completely responsible for boys' education, the General Presidency for Girl's Education was established in 1960 and was made fully responsible for girls' education. It controlled and supervised all four paralleled stages of education to that presented for boys that are set at 6-3-3-4 years for elementary, intermediate, secondary and university, respectively (Al-Salloom, 1988). It is also in charge of the education of both boys and girls at the preschool stage. It administers colleges of education and a number of junior teacher training colleges for girls, in addition to specialist training institutes and technical schools such as those devoted to nursing, tailoring and adult education.

Education at university level started with the foundation of the College of Sharia in Makkah in 1954 (Al-Sonbole et al., 2004) The Ministry of Higher Education was established in 1975 to widen the range of the education levels and to control the higher education sector. It directs and co-ordinates the universities throughout the country (Ministry of Education in Saudi Arabia, 1986). The government had already recognized the importance of technology and administrative knowledge for the development of the country. This recognition marked the growth in higher education in a very systematic

way to meet the country's development needs from this time onward. Throughout the country, new institutes of higher education were established and the existing ones were expanded. By 1999, there were eight universities and a large number of other institutions of higher education. On the fiftieth anniversary of the establishment of King Saud University in Riyadh (2006) King Abdullah announced of two new universities in the areas of Tabouk and Albaha, bringing the number of Saudi state universities to seventeen. By 2005, there was also an increased number of private institutes of higher education, with more planned.

One of the most essential objectives was to establish postgraduate programs in most disciplines at Saudi universities and colleges. As a result, Saudi students can now obtain degrees in almost any field within the country and, only if necessary, pursue specializations abroad (Royal Embassy of Saudi Arabia, 2006b).

2.4 Preschools in Saudi Arabia

The private sector led the provision of Preschool education in the Kingdom of Saudi Arabia until 1965. The first two private preschools were founded in Jeddah City in the western region in the same year, 1957, the first one was called Dar Al-Hanan and the other one was called Hadigat Al-Teffel, followed by Riyadd Al-Ollum preschool in the capital City of Riyadh in '96'. The number of private school centres has grown continuously until the present (The Presidency for Girls' Education, 1999).

The first state preschool was opened in 1966 in Riyadh by the Ministry of Education which was at that time solely responsible for boys' education. At the time there were 92 private preschools in the Kingdom (Al-Sonbole et al., 2004 & Al-Salloom, 1988). Following the Cabinet's resolution in 1980, the General Presidency for Girls' Education, which was solely responsible for girls' education, was entrusted with the responsibility for preschool education for both boys and girls. Before that, in 1975,

the first state preschool belonging to the Presidency for Girls' Education was already opened in Makkah City for the children of its employees and teachers, followed by many preschools in different cities in all regions of the country (Al-Salloom, 1988). The most important reason encouraging the Presidency for Girls' Education to expand its preschool education provision was the growing number of women working in the field of teaching, administration and medicine who were leaving their jobs in order to take care of their children (Al-Sonbole et al., 2004).

Although the short term experience in preschool education in Saudi Arabia was only 40 years, the Presidency devoted more effort to improving their qualitative aspects and modernizing its methods of educating children. The success achieved in this regard can be observed in the increase in the number of preschools which were established (the state preschools) and/or supervised (the private preschools) by the Presidency as shown in Table 2.1.

Table 2.1

The Growth of State and Private Preschools in the Kingdom of Saudi Arabia from 1980 to 2005

Type Year	Schools			Classes			Children		
	Private	State	Total	Private	State	Total	Private	State	Total
1980	59	13	72	379	66	445	12784	1171	13955
1990	263	110	373	1726	656	2382	34415	12386	46801
2000	464	316	780	2641	1245	3886	46936	31621	78557
2003	523	721	1244	2607	2770	5377	44876	49414	94290
2004	561	835	1396	2575	2939	5514	44069	52004	96073
2005	597	852	1449	2642	3014	5656	43617	53520	97137

Based on several Statistical Reports on General Education in the Kingdom of Saudi Arabia, Ministry of Education, Computer & Information Centre, and Statistical Unit. Reports for years 1980-2005

This success can also be observed in the growth of public interest in preschool education particularly amongst educated people. In addition, the findings of psychological and social studies and the recommendations of international and local organizations in the field of childhood education contributed to higher awareness of the importance of the preschool stage.

The rapid increase in the number of preschool centres is also due to vast changes in Saudi society that appear in the change of the family structure from an extended family (that included children, parents, grandparents uncles and aunts) to a nuclear one (including only the parents and their children), increase in the number of working mothers and women with higher education and their growing participation in the labour market. These changes were associated with an increase in individual income. However, according to Swaigh (1996) only 9% of children of preschool age attend preschool. In addition, Al-Kkhuthila et al (1999) found only 7.8% of children in first grade in primary schools had attended government run preschools.

The lack of qualified and trained early childhood teachers and educators is one of a number of problems facing the Presidency for Girls' Education since its early experience in the field of preschool education (Suliman, 1998). Therefore, since 1986 some universities such as King Saud University, Um-Al-Qura University and Girls' Colleges of Education opened early childhood departments which contained four-year teaching and training programmes in order to supply preschools with qualified teachers.

The recent development in early childhood education in Saudi Arabia took place at 2002 when the General Presidency for Girls' Education was integrated with the Ministry of Education which has become responsible for the entire education sector for boys and girls including the preschool stage. In 2003 a decision was made by the Ministry of Education to separate the preschool affairs from other stages of general

education schools under an independent administration which was called in 2004 The General Administration of Preschools. The main goal of this administration is to ensure the quantitative and the qualitative development of preschool education in state and private preschools in all of the Kingdom's regions. The General Administration of Preschools consists of the following sub administrations:

- The Administration for Development and Training
- The Administration for Preschool Equipment
- The Administration for Educational Supervision
- The Administration for Programs and Activities
- The Administration for Social Cooperation and Participation

(Ministry of Education in Saudi Arabia, 2005b).

2.4.1 The Preschool Curriculum in Saudi Arabia

Before 1994 there was no specific curriculum for preschools in Saudi Arabia, it was left to the schools and teachers' discretion. Every preschool had its own curriculum that was designed in light of the beliefs of the people who ran these schools and parents' wishes and goals for enrolling their children in these preschools.

The idea of developing the preschool curriculum emerged in light of the result of a training programme on teaching young children that was applied to 30 trainees in Riyadh by two childhood education professionals from UNESCO. At the end of this programme it was clear for the education policy makers in the Presidency for Girls' Education the uselessness of such training without a permanent and developed curriculum that includes a clear guidance for the trained teachers to help them to maintain the progress in developing their teaching skills and fulfilling their job. Therefore, in 1986 a decision was made by the state to support a comprehensive project to reform childhood education by designing a developed curriculum for preschool

children. In order to accomplish this comprehensive project an agreement was reached between the following organizations: The General Presidency for Girls' Education in Saudi Arabia, the Arab Gulf Programme for Supporting Developmental Organizations of the United Nations, and the United Nations Educational Scientific and Cultural organization (UNESCO). With the co-operation between the organizations and based on current psychological and educational theories the new curriculum was designed and developed, relevant equipment and teaching aids were provided and three training centres were established in three cities (Riyadh, Jeddah and Dammam) in the three main regions. These training centres provided a programme which aims to give teachers practical information on how to implement the newly developed preschool curriculum (Ministry of Education in Saudi Arabia, 2005a).

2.4.2 The Developed Preschool Curriculum in Saudi Arabia

The following section provides a description of the new curriculum (Ministry of Education in Saudi Arabia, 2005a), called the Developed Curriculum, including its philosophy, contents, objectives and the needs of children that it aims to fulfil.

The curriculum is considered as a standardized reference and permanent resource of information for preschool teachers and those who are in training courses or interested in the field of early childhood education. The curriculum integrates the educational and psychological theoretical perspectives with the practical every day experiences of teachers in schools in a standardized intellectual and educational framework.

The individual differences between children are the main focus of the curriculum. It looks at a child's total development in accordance with his/her style and modes of learning, allowing for differences in development and interests when planning activities and organizing the environment. The curriculum philosophy is that

understanding the child's development is a good start for teachers' training. The curriculum is based primarily on knowledge of how children grow and develop socially, emotionally, cognitively and physically and on how teachers develop and organize the appropriate learning activities, environment and schedule. Its programme was planned to meet the needs of individual children, teachers must consider where a child is in his/her development when they start working with him/her.

It emphasizes the interactive self-learning approach when educating and teaching young children by giving them opportunities to learn independently and learn by doing through active involvement with their environment and their relationships with peers and adults, so children can discover their learning potential and feel trust, happiness and belonging.

The curriculum follows certain criteria including flexibility, freedom, respect and appreciation of a child's identity and culture, play, knowledge and skills, and productive relationship with the child's family.

The curriculum includes two parts:

- 1- The teachers' manual, which aims to provide teachers with information about how to set the stage for children's learning.
- 2- Ten planned educational learning units which constitute the applied curricula.

These units are based on the subjects selected from a variety of concepts to meet the needs, interests and developmental levels of children. These include Water, Sand, Food, Home, Hands, and My Health and Safety. However, the units and their activity and procedures are not structured methods of teaching, but rather are flexible ideas and suggestions to spark teachers' creativity in planning further units that meet their children's needs.

The teachers' manual includes five chapters (1) the theoretical and educational framework that connects with the general policy of education and with the early childhood education goals in the Kingdom of Saudi Arabia in particular; (2) teachers' guide to children's discipline; (3) organization of classroom settings and physical environment; (4) daily routine; (5) information on how to prepare children for a new preschool year (Ministry of Education in Saudi Arabia, 2005a).

2.4.3 Goals of Early Childhood Education in Saudi Arabia

As reported in the educational policy of the Kingdom of Saudi Arabia in 1970 the goals of early childhood education were formulated on the basis of the general goals of education in Saudi Arabia, and to be consistent with children's nature and needs as follows (Ministry of Education in Saudi Arabia, 2005a):

- (1) To improve the children's instincts and looking after their moral, mental, and physical growth in normal and safe conditions that fulfil the requirements of Islam.
- (2) Establishing the religious inclination rooted in monotheism and in conformity with children's innate character.
- (3) Encouraging and teaching children good conduct and facilitating the acquisition of Islamic virtues through good examples at school.
- (4) Preparing the child for school life through familiarizing him/her with the school settings and moving him/her smoothly from home life to shared social life with peers at the school.
- (5) Enhancing the language development of children and increasing their vocabulary and their ability to use simple expressions and information that are suitable for their age, and are related to their surroundings.
- (6) Help children to develop physically by training them in applying motor skills, getting used to sanitary habits and training their senses for the best possible uses.

- (7) Encourage the children's creative activities, imaginative thinking, polishing their aesthetic taste, and allowing their energy to bloom with teachers' guidance.
- (8) Fulfil children's needs, please and satisfy them, and educate them in way that does not include either pampering or exhausting.
- (9) To be aware of protecting children against any risk, deal with early misbehaviour, and help them to overcome any problems of adjustment.

It is evident that these goals formulated in 1970 have lasted a long time without any changes or modifications especially after the new curriculum has been developed. They are more likely to be general goals and there is ambiguity, inaccuracy, and overlap between each other. In addition, they concentrate on the theoretical aspects more than on practical goals and are worded in a way that makes it difficult to put them into practice and assess it. The goals of preschools in Saudi Arabia need to be reviewed to be more practical, consistent with current educational and psychological theories, changes in social life, and more able to meet children's needs.

2.4.4 Needs of Preschool Children

On the basis of preschool goals and objectives the teachers' manual for the developed curriculum reported the following preschool children's needs (Ministry of Education in Saudi Arabia, 2005a):

- (1) The children need to understand the concept of 'God's abilities'.
- (2) Children need to respect and value their individual differences and needs.
- (3) Children need to grow up and learn in a supportive warm environment.
- (4) Children need to be guided by qualified teachers who are able to present good examples of Islamic morals.
- (5) Children need to make good relationships with peers and adults.
- (6) Children need to use language correctly.

- (7) Children need to know, understand, and explore concepts and information that are related and suitable to their ages and needs.
- (8) Children need to use all their senses in their play.
- (9) Children need to use and practise good healthy habits in a safe school setting.
- (10) Children need to find a unique way to express themselves and feel happy while doing it.

2.4.5 The Classroom Environment

The classroom environment can affect children's interaction and learning, therefore the developed curriculum arranges the classrooms in a way that creates a supportive and interesting indoor and outdoor environment for young children. The classrooms should have clearly defined, well equipped interest areas or centres that are arranged to promote independence, foster decision making, and encourage involvement. These centres are located around the perimeter of the classroom with a round soft mat located in the centre of the classroom to facilitate whole group learning activities. The learning centre activities should balance the physical, social/emotional, and intellectual/language needs of the children. These learning centres included:

- (1) Reading (Books) area
- (2) Constructive (Block) area
- (3) Dramatic Play (House) area
- (4) Expressive and Art area
- (5) Discovery area
- (6) Table Toy area

2.4.6 The Daily Programme

The curriculum includes an explanation of the procedure for implementing children's daily programme and the goals for each element as distributed across different time periods. These periods are: Circle Time (Planning Time) at the beginning of the school day, Outdoor Time (Play Ground Time), Breakfast or Eating Time, Working Time (Free Play Time), and Last Circle Time at the end of the day. This daily programme includes the two classroom activities – “Show and Tell”, which takes place in the Last Circle Time, and free play sessions – that the present study intends to study. Details about these activities are provided in Chapter Six.

Finally, the curriculum designs the daily programme on the basis of the following elements: regularity and stability; providing children with a variety of learning activities that include different ways of teaching children; and giving the children an opportunity to make their choices and decisions in their learning.

2.4.7 Shyness and the Developed Curriculum

One of the underlying goals of the developed curriculum is to help children to get along with others through developing their social competence and language skills. Social competence includes a child being able to initiate conversations and maintain relationships with peers. Dodge and Colker (1992, p. 25) reported that:

“A child must learn how to approach other children, how to negotiate issues that come up, how to take turns, and how to communicate effectively”.

With such goals in the curriculum shyness may become a problematic issue that could face preschool teachers. This is because in almost every group there is a shy child or more, who often have difficulty interacting with others.

“Some children appear to develop social skills with ease. They instinctively know how to make friends and find their place in a group. They get pleasure from being with other Other children, however, may need more time and help to feel comfortable in a group” (Dodge & Colker, 1992, p. 25).

Therefore studies such as the present research can support and reinforce the developed curriculum that was established in Saudi Arabia by means of helping teachers to understand their shy children in terms of the characteristics of their language development and their verbal behaviour in preschool settings, which is the main goal of the current study.

2.5 Summary

Nowadays, Saudi Arabia's nationwide public educational system consists of seventeen universities, more than 30,000 schools, and a large number of colleges and other educational and training institutions. All are open to every citizen regardless of race or sex. The system provides students with free education, books and health services. A measure of the government's large commitment to this sector is the allocation of over 25 percent of the annual state budget to education including vocational training (Royal Embassy of Saudi Arabia, 2006b).

This chapter also demonstrated the development of preschool education in Saudi Arabia through four decades. Preschool education increased from 72 preschools with 13955 children in 1980 to 1449 preschools accommodating 97137 children in 2005. For various reasons still less than 10% of children of preschool age attend preschool. In 2004 the Ministry of Education established the General Administration of Preschools in The Kingdom dealing with training, equipment, supervision, programs and activities in

addition to improving links between preschools and the community. Initially, the curriculum for preschools was left to the schools and teachers' discretion. Recently with help from UNESCO and the Presidency for Girls' Education a developed curriculum has been established, as well as training of teachers in three training centres established in three major cities (Riyadh, Jeddah and Dammam).

Saudi Arabia prizes education because of its critical importance in developing the country's human potential. As a result of the increase in the number of students who wish to go to higher education and state universities becoming unable to cope with the demand the Saudi government started since the year 2000 to allow and encourage the establishment of private universities to cope with this increase. Parents are deeply involved in their children's education, and close links between the home and school have been established.

Chapter Three

The Study of Shyness

3.1 Introduction

This chapter reviews research relevant to shyness in children and its relation to their language development. Shyness and related concepts of social withdrawal and inhibition have been the focus of a large number of research studies following a variety of methodologies including many that have involved longitudinal designs.

First, the chapter provides a review of the theoretical background of shyness in terms of its definition, its components, and its status as a trait. The measurement of shyness is also discussed, along with gender differences.

3.2 Definition of Shyness

Shyness in ordinary language is the term most commonly used to label feelings of anxiety and inhibition in social situations. It is a remarkably common experience: fewer than 10% of respondents to a cross-cultural survey reported that they had never felt shy (Zimbardo, 1977).

Crozier, (2001a, p. 1) stated that:

The word shyness is in common use in everyday life to refer to a sense of discomfort in social situations. It does not have a precise meaning, although it has connotations of wariness, timidity and inhibition.

The word shyness can have different implications for different people. People usually use the word shy when they talk about individuals who are reluctant to

participate in social interactions, or who are typically withdrawn, for instance shy persons may be described as quiet, non-social, or introverted (Beidel & Turner, 1999).

Engfer (1993, p. 49) stated that

shyness may have quite different qualities in different social situations for different people and in different stages of development.

Beidel and Turner (1998) pointed out that the term shy is used by researchers and ordinary people alike to describe those people who are silent in social situations. They also pointed out that shy persons, although socially reticent and apparently less sociable than others, can engage socially at the interactional and performance levels if necessary or might do so after a period of time. For example, a study of university students undertaken by Asendorpf and Wilpers (1998) reported that shyness which was aroused by the novel environment at the university in the student's first year significantly decreased over the course of the study (18 months) as students established relationships with others.

Despite the apparent simplicity of the concept of shyness and its pervasiveness in everyday life, scientific investigation of shyness shows it to be a complex topic. Many words and terms have been used to label shyness, including social anxiety, social phobia, avoidant personality disorder (Glass & Shea, 1986, Butler, 1999); and motivation to withdraw from social situations (Al-Nyal & Abo-Zyed, 1999).

Buss (1980) conceptualized shyness as a form of social anxiety along with audience anxiety, shame and embarrassment. Shyness is a broad disposition that includes both inhibition of social behaviour and avoidance of others. Some researchers use the term shyness and social anxiety interchangeably; this is because shyness

includes social anxiety, which is defined as “*discomfort in the presence of others*” (Buss, 1980, p. 204).

Several definitions have been provided by Zimbardo (1977, p. 13) including:

To be shy” is to be “difficult of approach, owing to timidity, caution or distrust”. The shy person is “cautiously averse in encountering or having to do with some specified person or thing”. “Wary in speech or action, shrinking from self-assertion; sensitively timid,” the shy individual may be “retiring or reserved from diffidence” or, even, from a different viewpoint, “of questionable character, disreputable, shady”.

Shyness can refer to feelings and behaviour that occur during particular situations, “*I am tense when I am with people I do not know well*”, or to certain person across situations: “*He is generally such a shy person*” (Rapee, 1998, p. xi).

Rapee (1998) also described a shy person as being nervous or worried about what other people are thinking of him/her. Shyness usually also involves being afraid of and avoiding situations or activities where the person might become the centre of people’s attention.

Additional definitions have been proposed in an attempt to delineate the elusive concept of shyness. Pilkonis and Zimbardo (1979, p. 134) defined it as:

A tendency to avoid social situations, to fail to participate appropriately in social encounters and to feel anxious, distressed and burdened during interpersonal interactions.

Similar definitions were presented by Al-Drini (cited by Al-Nyal & Abo-Zyed, 1999) that shyness is a tendency to avoid social interaction and/or ineffective social participation in social situations, and by McCroskey who defined shyness as “*the*

tendency to be timid, reserved, and most specifically, talk less" (McCroskey & Richmond, 1982, p. 460, cited by McCroskey, 1997).

Pilkonis and Zimbardo (1979) contend that shyness includes cognitive, emotional, physiological and behavioural components that are emphasized to different degrees by different people in various social situations. Some shy people worry more about their unsatisfactory behaviour in social situations, whereas others believe that they act appropriately but feel anxious when interacting socially. For many, it is difficult to avoid people altogether, and their shyness may be handled by keeping a low profile. This "safe" strategy may include avoidance of eye contact, talking or initiating action, thus no behaviour is emitted that could be evaluated by others. Still others have learned to cope with their shyness by developing the requisite social skills; however they still experience the internal discomfort of the attendant anxiety. Leary (1983) generated from his work on shyness a construct he calls "social anxiety". He noted two components in his construct, "an internally experienced discomfort and externally observable behaviour".

A fundamental issue is illustrated by the disagreement about how shyness should be defined in relation to different forms of anxiety. Briggs, Cheek and Jones (1986) reviewed research and reported that Buss (1980), for example, regarded shyness as a form of social anxiety. Other approaches define shyness as an overall, unitary form without considering its relation to other forms of social anxiety (Jones & Russell, 1982).

It can be seen that there are numerous definitions of shyness, the preceding representing just a sample of what exists in the literature. The basic component of each definition is uneasiness and the motivation to escape from the situations that contribute to it. However, shyness appears to be more complicated than simply described as a dislike of social situations accompanied by discomfort.

Shyness can be viewed as unitary or it can be divided into types. For example, Eysenck (1956, cited by Briggs, Cheek & Jones, 1986) divided shyness into two types: '*introverted shyness*' and '*neurotic shyness*'. Those who display introverted shyness prefer solitude to the company of others, at the same time they are able to interact effectively in social situations. Those who exhibit neurotic shyness are people whose social anxiety is so intense that they are inept in interacting with others, even when they would like to do so. This distinction is supported by several studies. Pilkonis (1977a) for example has found significant correlations between items from a self-rating of shyness scale and the EPI (Eysenck Personality Inventory) items of both extraversion and neuroticism scales. Similar results were found by Briggs and Smith (1986) and by Asendorpf and Wilpers (1998) who reported significant correlations between different measures of shyness, a measure of extraversion and a measure of neuroticism. A review of research by Crozier (1979, cited by Crozier, 2001a) concluded that shyness correlates with both neuroticism and introversion.

Lewis (1995) distinguishes between early shyness in the first year, which is avoidant and based on primary emotions, and late shyness which contains two forms of embarrassment (self exposure, self-conscious and self evaluation) and which arises between 18 months and 3 years.

Buss proposed that shyness can be divided into two different types: '*fearful shyness*' and '*self-conscious shyness*'. The fearful type develops early, usually between the ages of 7 and 12 months of life, and is based on a genetic component. It is related to stranger anxiety which involves wariness, moving back, and the seeking of comfort when encountering unfamiliar adults. Fearful shyness is characterized by behaviours such as crying and shrinking away. For most children the trait of fearful shyness tends to reduce as they grow up (Buss & Plomin, 1984). However, Buss argues that we must

be careful to distinguish between shyness and fearfulness in infancy. If the child is fearful or is wary only with unknown people or in his or her approach to them this behaviour is regarded as shyness. The behaviour will be considered as fearfulness when the child is fearful not only of strangers but also of strange objects, environment and events (Buss, 1980, 1986).

Self-conscious shyness develops later, by the fourth or fifth year of life. It involves an individual's sense of self as a social object (Buss, 1986). In contrast to fearful shyness, Buss argues, self-conscious shyness appears only in older children and adults because their tendency to focus on their selves as social objects requires a level of cognitive ability, experiences in social interaction and socialisation training that are not available in young children. Schneier and Welkowitz (1996) defined self-consciousness as the awareness of how one might be evaluated negatively by others and concern about the result of this evaluation. They commented:

Self-consciousness is not present in most animals or even in very young children. It requires the ability to put yourself in some one else's shoes and to take a look at yourself through another's eyes (Schneier & Welkowitz, 1996, p. 10).

Once a sense of self develops the child is at risk of embarrassment and self-conscious shyness. The origins of self-conscious shyness are reported to be related to excessive socialization training and beliefs about the importance of proper appearance that occur in the late childhood and adult. The child is made to feel conspicuous, awkward, foolish and vulnerable rather than frightened, and this is considered to be the major difference between fearfulness and self-consciousness.

Finally, while no widely shared conceptualization of shyness has been reached, Asendorpf (1987) has reviewed research and identified four notable clarifications of the lay concept of shyness.

First, a clear distinction should be made between the state of shyness with its transient affect and the trait of dispositional shyness. Second, similar to all affective states, situational shyness should be considered a syndrome including overt behavioural processes that are often consistent (Leary, 1986). Third, the state of shyness occurs in social situations, and involves high levels of anxiety caused by specific aspects of current or future interactions (Cheek & Buss, 1981; Jones, Briggs, & Smith, 1986; Leary, 1986). Fourth, situational shyness involves a positive affect, such as interest. Observational studies of children in novel social situations, for example, showed a frequent mixture of social interest and social avoidance (Izard & Hyson, 1986).

Zimbardo reached the conclusion that shyness is a multifaceted and conceptually ‘fuzzy’ condition that could affect people in different ways and to various degrees:

No single definition can be adequate because shyness means different things to different people. It is a complex condition that has a whole range of effects – from mild discomfort to unreasonable fear of people to extreme neurosis (Zimbardo, 1977, p. 13).

Since Zimbardo’s survey researchers have tried extensively to interpret the exact meaning of the term shyness (Spere, 2004). Nevertheless, Crozier (2001a) argued that there is in practice a large degree of consensus amongst writers or participants in psychological research in their description of shyness.

3.3 Components of Shyness

Shyness has been conceptualized in different ways. Although observational studies, experimental, psychometric and clinical research show considerable agreement about the typical reactions of shy people, disagreement between definitions of shyness centres on deciding which reactions typify the concept of shyness and should be considered the core characteristics that identify the shy individual: global feeling of tension, specific physiological symptoms, worry about negative evaluation from others, painful self-consciousness, reticence, inhibition, or awkwardness (Briggs, Cheek & Jones, 1986; Leary, 1986).

Employing the standard psychological tripartite division of experience into three factors: observable behaviour, feelings, and cognition is one way to arrange the list of typical shyness symptoms. This trichotomy of affect, acting, and thinking has a long history in psychology (Breckler, 1984). Cheek and Briggs (1990) also distinguished in their work the three components of shyness; Buss (1984) supported the elaboration of a three component model of shyness. Leary (1982, 1983) argued that most measures of shyness confound cognitive and affective aspects with behavioural characteristics by asking respondents to report on both. More recently, Leary (2001) proposed that shyness involves both affective and behavioural features.

Jones, Briggs, and Smith (1986, p. 638) conducted a set of factor analyses of 88 items that comprised five existing measures of shyness and concluded that “*there are persuasive reasons to suspect that a single dimension underlies the construct of shyness*”. There is consistency in factor analyses of shyness and sociability items conducted by Jones, Briggs, and Smith (1986) and by Cheek and Buss (1981) which indicate only one major factor in shyness items, although some efforts have been made to identify sub-scales (Leary et al., 1986).

Nonetheless, other than factor analysis, research employing a selection of methods persuaded Cheek and colleagues to continue to maintain their preference for the three-component model rather than the uni-dimensional conceptualization of shyness (Cheek & Briggs, 1990).

Affective shyness involves social anxiety that is aroused by “*the prospect or presence of interpersonal evaluation in real and imagined social settings*” (Schlenker & Leary, 1982, p. 642). Anxiety could be experienced by individuals about many types of events that are real, anticipated, or imagined threats to their comfort. Leary (2001) applied the label social anxiety when the threat involves how others perceive and evaluate an individual. Anxious symptoms include global feelings of emotional arousal with more specific physiological complaints, such as stomach upset, pounding heart, sweating and/or blushing. These reactions represent the somatic anxiety factors of shyness. Surveys of college and high school students revealed that between 40 to 60% of shy students experience difficulties with several symptoms in this category (Fatis, 1983). Clearly the somatic component is an important aspect of shyness. For example, in a study that employed content coding of free descriptions by a sample of shy women who were asked to describe why they considered themselves as shy, 38% of the participants described at least one somatic anxiety symptom (Cheek & Watson, 1989).

The cognitive component of shyness involves extreme public self-consciousness, self-deprecating thoughts and worries about negative evaluation by other people. The distinction between somatic and cognitive components of shyness is based on the difference between somatic anxiety and psychic anxiety (Buss, 1962; Schalling, 1975), a distinction which continues to receive empirical support (Deffenbacher & Hazaleus, 1985).

In addition, distinguishing somatic components of shyness from advanced cognition is essential for understanding the development of young children's shyness (Greenberg & Marvin, 1982; Izard & Hyson, 1986).

The third category of shyness concerns the social behaviour of shy people. The relative absence of normally expected social responsiveness defines the quietness and withdrawal typical of shy people (Buss, 1984). Leary (2001, p. 219) reported that behavioural aspects of the behavioural component of shyness include

inhibited, reticent, and withdrawn social behaviours. In extreme instances, behavioural withdrawal may be total, as when an individual avoids social events. In other cases, people may withdraw partially by participating only minimally in social encounters that they find difficult. Shy people talk less than they otherwise would do, and they may display other signs of disaffiliation such as gaze aversion, a closed body position, and other social distancing behaviours.

Pilkonis's (1977b) observational study found that, compared to non-shy male college students, shy male students tended to talk less, initiated fewer conversations, and looked less at the other person during unstructured social encounters. In a similar study, Cheek and Buss (1981) found that shy participants reported being tenser, quieter, and more inhibited than did non-shy participants. Similarly, the results of several laboratory experiments indicate that most, but not all, shy people show observable deficits in social skills (e.g. Curran, Wallander, & Fischetti, 1980; Halford & Foody, 1982).

Although the affective and behavioural components often occur together, they are distinct reactions and should be considered separately (Leary, 2001). Behavioural

inhibition and withdrawal are not automatic outcomes of anxiety, which mostly lead to increased affiliation (Schachter, 1951, cited by Leary 2001). For example, people often feel quite socially anxious yet do not display evidence of their subjective distress.

Even though all three components of shyness are important, none is an umbrella aspect of the experience of shy people. Research that supports the three components model suggests that shyness as a universal characteristic should be conceptualized as a personality syndrome that involves varying degrees of these three types of reactions (Cheek & Melchior, 1990, cited by Cheek & Briggs, 1990). Such research confirms Buss's (1984) theoretical argument that it is reasonable to conclude that a person is shy when symptoms of at least one of the three components is experienced as a problem in a social context, as well as his contention that it makes little sense when limiting the representation of shyness to any one of the three components and excluding the other two (Cheek & Briggs, 1990).

3.4 Conclusion

In this section examples of different definitions of shyness have been provided. These examples illustrate the diversity of definitions and the difficulty of reaching an agreement on a single definition. Despite the simple concept of shyness as used in everyday life by ordinary people, scientists have provided complex definitions and different terminology. Some definitions refer to transient interactions that occur during specific situations and others apply the trait of dispositional shyness. Some researchers include cognitive, affective, physiological, and behavioural components in a multi-faceted definition of shyness while other researchers note only two components. Others regard shyness as a unitary form with or without relation to social anxiety. Clearly the large number of definitions relying upon a wide range of theoretical and practical approaches has made it difficult to reach a consensus on a single definition. However,

the common themes that are shared are uneasiness (anxiety), inhibition and the motivation to withdraw from the situations that contribute to shyness.

In order to cope with this difficulty distinctions between different types of shyness have been proposed, such as the distinctions between shyness and low level of sociability (Eysenck, 1956); early shyness and late shyness (Lewis, 1995.); fearful shyness and self-conscious shyness (Buss, 1980).

The theories of the three components of shyness have been discussed. The somatic anxiety component of shyness involves social anxiety associated with specific physiological complaints. The cognitive component involves extreme self-consciousness and the third component is the behavioural aspect of shyness that includes reticence, inhibition, and social withdrawal. Although all three components are important none of them is a universal aspect of shyness. Shyness, as a global characteristic, involves varying degrees of these components.

3.5 Shyness as a Trait

The concept of a trait involves an enduring tendency to behave, think, or feel in a certain way. Guilford (1959, p. 6, cited by Daly & Bippus, 1998) defined a trait as *“any distinguishable, relatively enduring way in which one individual differs from others”*. The trait theories of personality assumed that there is constancy about the way in which individuals behave. The behaviour is determined partially by certain characteristics of the person, and not completely by situation (Cooper, 1998). Cooper related this to people’s personal experiences, where they usually describe others’ behaviour using adjectives such as shy, timid, and nervy, meaning that some of their features, rather than the situations they are in, determine how they behave. Traits differ in a number of ways, for example, some call attention to cognitive variables and some emphasize social characteristics; some are broad in their focus, and others are narrow;

some traits are included in a large scheme and others are distinct. In addition, some are identified on the basis of responses to questionnaires whereas others are mostly recognized in overt behaviour. However, the underlying assumption of all these differences is similar: Individuals vary in systematic ways from each other (Daly & Bippus, 1998).

In shyness research the distinction between state shyness and trait shyness is very important. Shyness may be perceived as an emotional response to a certain social situations or as a relatively enduring stable personality disposition. State shyness is an emotional state, in a transitory circumstance which may be experienced at least occasionally by virtually anyone (Izard, 1977).

Asendorpf (1990c) presented a useful summary of this distinction: ‘state shyness’ and ‘trait shyness’, although somewhat different, are linked concepts; results gained for one of them cannot necessarily be generalized to the other. Asendorpf defined trait shyness as:

the tendency to experience state shyness with an above average intensity consistently over time and across a wide variety of social situations (Asendorpf, 1990c, p. 92).

He distinguishes two types of differences between state shyness and trait shyness. First, state shyness refers to *intraindividual* differences. These differences can be studied in two types of design, “within-subject” in which the behaviours of an individual are compared in two situations that elicit different levels of state shyness. The other design is “between-subjects”, in which two groups of individuals, comparable in trait shyness are observed in each situation.

Second, *Interindividual* differences refer to trait shyness; these differences can be studied in a “between-subjects” design in which the subjects are observed in the same situations for comparative purposes.

Asendorpf (1985, cited by Asendorpf, 1990c) found in a study of 192 students that, intraindividually, reports of a “happy mood” correlated positively with state shyness, which suggests that people experience mixed feelings when they become shy. At the same time, a negative correlation was found between “happy mood” and trait shyness, for each situation and for the aggregate of all situations, which indicates that there are complex relations between trait and state shyness.

Many psychologists have taken a strong view of traits, conceptualizing them as:

“stable internal attributes that influence behaviour across a range of situations” (Crozier, 2001a, p.16).

Buss (1980) considered shyness as a trait since it appears as a factor in analysis of personality inventories, usually associated with low sociability and anxiety. Consequently people who have slight motivation to interact with others are expressing an aspect not only of shyness but also of wariness and fearfulness. So Buss found it is not surprising that in personality inventories shyness is linked with both low sociability and fearfulness.

The concept of personality traits has aroused controversy since psychologists disagree whether traits give an explanation of behaviour or simply describe it. Thus trait shyness has also generated controversy. To resolve the issue, Crozier (2001a) provided evidence for shyness as a personality trait through several steps: First, he reviewed some of the most important approaches to identifying fundamental personality traits and considered the position of shyness within the models of personality that have come to light. The review indicated that three major systematic approaches agree that there are at

least two fundamental higher order dimensions: extraversion-introversion and neuroticism, and shyness appear to be related to both of them. Second: in order to distinguish between the traits of shyness and introversion, the evidence was assessed. Briggs (1988) concluded that in a hierarchical model of personality shyness might best be represented as a primary factor situated between introversion and neuroticism which contributes to both of them. Shyness should precisely be located between the sociability component of introversion and the low self-confidence aspect of neuroticism. Shyness is not synonymous with introversion because it also has elements of neuroticism. However, Crozier (2001a) pointed to some evidence from previous studies that shyness can be distinguished more clearly from introversion. For example, a study by Eysenck (1956, cited by Crozier 2001a) undertook an analysis of a number of scales: shyness, introversion, and neuroticism. Eysenck identified within the shyness scale two sets of items: items linked with introversion but not with neuroticism (e.g. liking to mix socially and sitting in the background on social occasions), and a second set of items linked with neuroticism but not with introversion (e.g. feelings of loneliness and self-consciousness). Also, a study by Schmidt and Fox (1994) examined differences in heart rate and heart rate variability between 40 young women who were selected for either high or low self-ratings of shyness. Participants who obtained high scores on measures of both shyness and sociability had a considerably higher and more stable heart rate when anticipating novel social situations than those participants who were shy and less sociable and those who were non-shy.

After reviewing the literature on shyness as a personality trait, Crozier (2001a, p. 27) concluded:

Shyness conceived as a personality trait, is neither the same as introversion nor the opposite of sociability. It is possible to be both

shy and sociable, and those who are both tend to be more anxious in a social encounter than those who are simply shy or less sociable.

The present study adopts a trait conception of shyness. Many psychologists in the literature as mentioned earlier have taken a strong view of trait shyness. Thus, it is important to be clear about the conceptualization and measurement of shyness as a trait. Referring to the above definition of shyness that approached it from the trait perspective, it can be assumed that the reticence, discomfort, and inhibition the child may experience in a social situation reflects an enduring tendency or predisposition, not just a reaction to some temporary feature of the situation. The trait shyness as identified is a stable internal characteristic that persists from childhood to adulthood, and influences the child's development, performance and behaviour across a variety of social situations (Crozier, 2001a). A child high in the trait of shyness will be exposed to a higher level of anxiety than a child low in shyness independently of the level of threat in the situation. Therefore, the research design that is established in this study to study the differences between shy and non-shy children in their language development is a comparative design. The participants are selected to be shy or non-shy on the basis of teacher judgments, their performance is compared on a vocabulary test, and during two preschool activities, a "Show and Tell" activity, and during free play. Two approaches are used, "between-subjects" in which differences between the two groups are assessed, and "within-subjects" in which the behaviours of participants are compared in different situations.

3.6 The Measurement of Shyness

3.6.1 Introduction

From the literature it can be summarized that shyness overlaps with other kinds of anxiety, such as social anxiety, social withdrawal, audience anxiety, inhibition, fear of negative evaluation, and social phobia. Large numbers of assessment instruments are currently available for assessing shyness and related anxiety disorders in adults and children; this section will examine the utility of various assessment tools. Although shyness is most often assessed through some form of self-report, physiological measures of arousal, behavioural measures, observer ratings and shyness scales have also been used at either a trait or state level.

3.6.2 Self-Report Measures

The literature indicates that the most widely employed approach to assessing shyness in adults and older children is self-report measures. It has been argued that the best way to find out something about someone is simply to ask him or her. Self-report is a time-saving method of assessment that elicits a variety of anxiety symptoms from the child's perspective; since anxiety is an internalizing disorder Rapee and Sweeney (2001, p.510) suggested that "*children's self-reports can reveal important elements of the symptom picture that are not readily observable*". Additionally, self-report measures are most appropriate when they are directed towards matters of affect and/or perception in safe circumstances where there is nothing to make respondents afraid of negative consequences from any answer given by them. However, when the questions are directed towards matters of fact that may be unknown or unknowable by the respondent they will be least useful. Moreover, self-report measures are useful in assisting the quantification of symptoms, and some of them offer scores that have been empirically

validated as indicators of shyness in a child. Finally, self-report measures require minimal time and they can trigger recall of additional aspects of the phenomena. This can be extremely helpful in final decision making and treatment planning (Beidel & Turner, 1998). Self-report measures are also considered as important contributors to normative data (Rapee & Sweeney, 2001).

Self-reported shyness may not necessarily find expression in behaviour (Check & Briggs, 1990), and inhibited behaviour may reflect introversion rather than shyness. Crozier (1995) argued that shyness must be tied to individual self-appraisals; therefore, he constructed a measure of shyness for children aged 9-12 years. Several other measures of shyness are available and are currently being used in empirical studies. Using different procedures for item generation and scaling these measures have been developed by different researchers (Jones, Briggs & Smith, 1986).

3.6.2.1 Shyness Scales

The Crozier Children Shyness Scale (Crozier 1995) contains 26 items. Children's conceptions of shyness were elicited using a form of prototype analysis that depends on the frequency of mention of instances of shyness in a free listing task. A self-report questionnaire was constructed on the basis of the words and phrases produced by children. The questionnaire was subject to item analysis and the hypothesis was tested that there would be statistically significant, negative correlations between scores on the shyness measure and measures of self-esteem. Crozier (1979, cited by Crozier, 2001a) argued that shyness has consistently emerged throughout the wide range of personality factor analytical studies. Recently, as a result of attention that has been paid to shyness a number of scales to measure this factor have been developed (Crozier, 2001a).

As seen previously, shyness has often been used interchangeably with social anxiety. Many studies that compare shyness with social anxiety measures show that high scores on shyness are correlated with heightened affective reactions such as anxiety and hostility (Pilkonis, 1977a; Zimbardo, 1977). These findings indicate that the shyness and social anxiety scales measure the same construct, which may confirm shyness as a form of social anxiety. However, the results from a study reported by Jones, Briggs and Smith (1986) confirmed that the shyness measures were empirically distinct from measures of related constructs. Table 3.1 lists a number of well-known shyness scales.

Table 3.1

A Summary of Shyness Scales

Scale Name	Author and Date	Number of Items	Aspects Measured
Social avoidance and distress scale	Watson and Friend (1969)	28	Social evaluation anxiety
Fear of negative evaluation		30	Evaluation apprehension
Personal report of communication apprehension (PRCA)	McCroskey et al. (1970)	25	Emotion and behaviour
Social anxiety scale	Fenigstein et al. (1975)	6	Social anxiety
Shyness scale	Cheek and Buss (1981)	9	Emotion and behaviour
Shyness scale	McCroskey et al. (1981)	14	Behaviour
Social reticence scale	Jones and Russell (1982)	21	Cognition and emotion
Morris shyness scale	Morris (1982) cited by Crozier (2001)	14	Discomfort in the presence of others
Interaction anxiousness scale	Leary (1983)	15	Affective component of shyness
The adjective checklist for shy people: Shy-positive scale Shy-negative scale Shy-balanced scale	Gough and Thorne (1983)	66	Description of oneself
		22	
		22	
		22	
The shyness situation measure	Jones et al. (1985)	20	Level of shyness
Trait shyness scale	Aikawa (1991), cited by Crozier (2001)	16	shyness
Children shyness scale	Crozier (1995)	26	Children's shyness

Based on Crozier (2001a, p. 27); Briggs and Smith (1986)

Crozier (2001a) pointed out that the construction of these scales was based on different conceptualizations of shyness, for example, Leary's "Interaction Anxiety Scale" refers only to self-reported anxiety without any reference to behaviour. Leary (1982, 1983) argued that most measures of shyness and social anxiety confused cognitive and affective aspects with behavioural characteristics by asking respondents to indicate both. In addition, he categorized the scales into two groups: (1) those that measure social anxiety as a simply subjective phenomenon, and (2) those that measure social anxiety as both a subjective and a behavioural phenomenon. Although, Jones, Briggs and Smith (1986) agree with Leary that it is important to make such conceptual distinctions, they argued that items measuring social anxiety correlate substantially with items assessing the behavioural concomitants of shyness.

McCroskey and Beatty (1986) have developed two scales, a Shyness Scale and a Communication Apprehension (CA) Scale. They distinguished between the two scales, regarding shyness as the predisposition to withdraw from or avoid communication with other people, quietness and lack of talkativeness; this avoids reference to anxiety. Hence, CA is a measure of subjective and affective experience and assesses anxiety in four types of social situations. Anxiety is assessed by items referring to feeling afraid, nervous, tension, inability to think clearly, not being calm or relaxed, and lack of confidence; no items mention behaviour.

Crozier (2001a) reported a comparison between the scales in the Table 3.1. All scales in the Table include items that refer to shyness except for the PRCA. The scales also include items that refer to a mixture of cognitive, affective and behavioural aspects. Crozier (2001a) argued that despite this combination of aspects, the unsystematic sampling, and variation in the number of items in the scales, empirical studies show that

the scales are correlated to a significant degree and appear to be measuring the same thing.

Five scales were analyzed by Briggs and Smith (1986). They found that all five scales appear to exceed conventional standards for internal consistency, and alpha coefficients ranged from .82 to .92. Each one of the five scales correlated highly with each other (0.70 to 0.86) with a mean correlation of 0.77 (Briggs & Smith, 1986).

3.6.2.2 Cheek and Buss Shyness Scale

Cheek and Buss (1981) distinguished between shyness and sociability and suggested that shyness and sociability are not simply opposing extremes on a single dimension. In order to discriminate between these two constructs they developed independent measures of shyness and sociability. They defined shyness as “*the discomfort and inhibition that may occur in the presence of others*”, and sociability as “*a need to be with people*” (Cheek and Buss, 1981, p. 330). The two measures of shyness and sociability are correlated moderately. They also found that in dyadic-interaction participants who scored high on the shyness scale were less talkative and were rated by observers as more nervous, inhibited, and unfriendly. Finally, Cheek and Buss’s (1981) scales identified an interaction effect between shyness and sociability that appears when an individual scores high on separate measures of both shyness and sociability. Individuals who were high in both exhibited more anxiety than individuals who were high in shyness only.

The original Cheek and Buss scale (1981) comprised nine items four versions were later produced with 11, 13, 14, and 20 items respectively. Although alternative measures of shyness are available the scale has become the most widely used measure (Crozier, 2005).

3.6.3 Behavioural Observation

Observation is one of the most important methods used in collecting data for educational research. Dane (1990) described observation as a research method in which events are selected, recorded, coded into meaningful units and interpreted by non-participants. Also, observation provides the observer with an accurate picture of the situation and it is a sound method to be used to study children and understand their behaviour in a natural context, while at the same time providing realistic information for analysis (Irwin & Bushnell, 1980).

Pellegrini (1991, p.217) stated that:

Observation of children's play provides the observer with opportunities to observe children functioning in a natural context.

3.6.3.1 Types of Observation

There are several types of observational method, some more common than others. Although essentially similar, they do differ from each other in the degree of the observer's participation in the situation, in the setting in which it occurs, and in the approach in which it is prepared (Sarantakos, 1998). Observation can be distinguished in two main ways:

(1) Participant and non-participant observation: The degree of the observer's involvement in observation varies from no participation to full participation. In the first case, observers study their cases from outside the group without becoming a part of the environment of the observed. Their position is clearly defined and different from that of subjects. In ideal terms the observers are invisible. The best example of non-participant observation is laboratory observation. In the second case, the observers observe from

inside the group. They actually become members of the group they are supposed to study, and ideally their identity as a researcher is not known.

(2) Structured and unstructured observation:

These two types of observation differ in terms of the degree to which they are structured. Structured observation uses a formal and strictly organized procedure, with a set of well-defined observation categories, and is subjected to high levels of control and discrimination. Unstructured observation is loosely organized and the process of observation is mostly left up to the observer to define.

Many cases of observation lie somewhere between the previous two extreme types of observation: participant and non-participant, or structured and unstructured observation. The difference between the various forms of observation is a matter of degree rather than a matter of substance (Robson, 1993; Sarantakos, 1998).

Observation is a commonly used method in studying children's behaviour because it can be conducted easily in assessment in school, home, laboratory, and clinical settings (Merrell, 1999). It is useful in targeting children whose behaviours deviate from age group norms, for example, observation is the most appropriate way to monitor children's progress in their language development, and compare it with the way in which they mature and develop (Sharman, Cross & Vennis, 2000). Fawcett (1996) mentioned that an observation of the actual speech production, the clarity of the sounds, perhaps certain mispronunciation or even omissions of parts of words is a way to decide whether it is just a normal stage in speech growth or an indication of some difficulty.

3.6.3.2 Observation of Shyness

Behavioural observation of shyness is also widely used in the assessment of different types of social anxiety such as shyness, behavioural inhibition (Asendorpf, 1993b; Garcia-Coll et al., 1984; Kagan et al., 1984, 1987, 1988; Rubin, Burgess & Hastings, 2002) and social withdrawal in children (Mills & Rubin, 1993). Van Kleeck and Street (1982) for example, observed the talk of two reticent girls and two 'verbal' girls in the context of social interaction in a school setting. Evans (1987) also observed and audiotaped kindergarten "Show and Tell" sessions in the classroom to investigate differences between shy and less shy children's speech when talking to a group. Kagan and his colleagues carried out observations in laboratory settings in order to identify the characteristics of inhibited and uninhibited children under controlled conditions. Kagan, Reznick and Gibbons (1989) in a longitudinal study observed 100 children in laboratory settings at 14, 20, 32, and 48 months and coded their behaviours for inhibition and lack of inhibition. Crozier, Rubin and Hastings (2003) used a laboratory observation to predict several measures of reticence at 4 years from two measures of inhibition made at 2 years.

Several observational scales have been developed to measure the frequency of occurrence of different types of behaviour, relationship roles, and levels of social competence (Rubin, Coplan et al. 1999). Rubin (1982a) for example, in his work on identifying different types of withdrawn behaviour and the non-social play in young children during free play, developed the Play Observation Scale (POS) that will be discussed in Chapter 4.

Observation represents a useful strategy to assess the extent of an individual's shy behaviour. Studies with adults and some recent research with children indicate that observational methods may provide information relevant to the observer's

understanding of the phenomenon, evaluation, and treatment planning (Rapee & Sweeney, 2001). Beidel and Turner (1998) reported that it is important to include behaviour measures in the assessment of socially anxious children. They provided an example from their work in their anxiety clinic; some referred children verbally denied any difficulties in making friends but, when observed they were unable to show friendship-making skills, maintain social interaction, or perform effectively on a social performance task.

Observation has some disadvantages that may limit its use as an effective method. It is time, energy and money consuming and difficult to use with older children during free play, albeit the technological tools that facilitate the observation of children's talk from afar are available. In addition children may change their natural behaviour when aware that they are being observed (Rubin, Coplan et al. 1999).

Coplan and Rubin (1998) suggested that in the pre-school free play time setting, teachers may be regarded as a useful source of information related to young children's social and nonsocial behaviour. Teachers can represent an alternative or less expensive and quicker form of behavioural observation when they rate their children's behaviour.

3.6.4 Teachers' Ratings

Teacher's rating is a commonly used method of gaining data concerning the behaviour of children in educational research. Studies have shown that teachers' ratings of children's verbal behaviour are correlated significantly with children's actual interaction rates in preschool settings (Van Kleeck & Street, 1982).

Evans (1993) reported that a number of researchers have used teachers' ratings as the main method in their studies, for example, Landon and Sommers (1979) used teachers' ratings to identify two groups of children in the classroom who were "quiet" and "chatterboxes". Van Kleeck and Street (1982) observed two talkative and two

reticent three-year old girls. The talkative girls were nominated as such by their teachers but the reticent girls had been observed in a previous study. Evans (1996) conducted a study of 128 children, twenty kindergarten teachers were asked to rank order the children, dividing the list into: very quiet, somewhat quiet, somewhat verbal, very verbal groups. Crozier and Perkins (2002) also used teachers' ratings; 40 shy and not shy boys and girls were selected by the class teachers in two primary schools in order to identify whether shyness affects children's performance in a structured task which requires the child to tell a narrative about a set of pictures.

Rubin, Coplan et al, (1999) concluded that because teachers spend a large amount of time with children they are considered an important source of information for providing useful and extensive data about children's social and non-social behaviour. Although information collected by means of teachers' ratings is more efficient in regards to time, effort and money, one of the greatest disadvantages of these ratings is, as Borg and Gall (1983) pointed out, that the ratings are difficult to conduct on a scientific and tightly controlled basis. This is because of the "halo effect" which operates strongly in this type of evaluation. They concluded that:

In many cases, however, the behaviour of the individual as seen through the eyes of his/her supervisor, although different perhaps from the objective behaviour of the individual, still has an important meaning in educational research (Borg & Gall, 1983, p. 509).

In addition, teachers' ratings of social and non-social behaviour tell us little about the associated behaviours that accompany or predict the general quality of a child's interaction. They also do not allow us to distinguish between different types of isolated play or verbal behaviour (Rubin, Coplan et al., 1999). However, Crozier (1995) reported that research into measuring shyness should not be based only on observations

or ratings of behaviour. Studies have also identified somatic components of shyness that are correlated with its behavioural components and could be measured.

3.6.4.1 Buss and Plomin Parents' and Teachers' Shyness Checklists

The subscale of the Parents' Version of the EAS Temperament Survey was developed by Buss and Plomin (1984). They revised their parental rating version of the EASI-II and items based on the nine temperament dimensions of the New York longitudinal study. From the factor analysis of these two sets of items Buss and Plomin formed a new instrument called the Colorado Childhood Temperament Inventory. This scale has 20 items including three scales that measure emotionality, activity, and sociability (EAS scales). The sociability scale is viewed as a shyness measure. The subscale of the teachers' ratings version of the EAS Temperament Survey was also formed by Buss and Plomin (1984). The teachers' shyness checklist included the same five shyness items that measured shyness in the parents' checklist.

3.6.5 Psychophysiological Measures

There is substantial research in the area of physiological functioning in anxious children including studies of shy, inhibited, and socially withdrawn infants and toddlers (Kagan, Reznick & Gibbons, 1989; Calkins et al., 1996; Fox & Calkins, 1993; Schmidt, 1999; Schmidt & Schulkin, 1999)

In their research program Schmidt and his colleagues (Schmidt & Fox, 1999; Schmidt & Schulkin, 1999) focused on understanding the biological basis of childhood shyness and aimed to identify early infant predictors of shyness by using a multi-measure and multi-methods approach. Current thinking suggests that the origins of shy behaviour may be linked to the dysregulation of some components of the fear system. This hypothesis is based mainly on studies of animals and findings of the importance of

the amygdala in the regulation and maintenance of conditioned fear (Schmidt & Tasker, 2000).

The four physiological measures arising from the neurobiological model of behavioural inhibition (Marshall & Stevenson-Hinde, 2001) include:

electroencephalographic (EEG) measures, *cortisol levels*, *heart period*, and *heart period variability*. Marshall and Stevenson-Hinde (2001) reported that within the behavioural inhibition model, individual differences in approach or avoidance behaviours in children relate to patterns of activation in the frontal region of the brain, and the hemispheric asymmetry in frontal brain activation was used as an index of motivational tendencies towards behavioural inhibition. The EEG technique is often used to examine hemispheric asymmetries by recording and comparing the electrical activity of left and right frontal regions of the brain.

Another measure is *cortisol level*. The adrenal gland produces cortisol in response to a threat encountered by the child. The cortisol levels in children can be assessed from saliva samples collected in different situations (Marshall & Stevenson-Hinde, 2001). Studies report a theoretical rationale for relationships between behavioural inhibition and cortisol levels. Schmidt et al. (1997) found that more wary and anxious four-year-old children showed significantly higher levels of morning salivary cortisol when playing with unfamiliar peers in the laboratory than did their less shy peers.

Heart period is the result of complex patterns of activities across the various bodily systems, for example, the responses to a stressor would cause the heart to beat faster. Kagan (1984, cited by Marshall & Stevenson-Hinde, 2001) predicted that inhibited or shy children would show lower heart period in an unfamiliar context when compared with uninhibited children. The initial study that confirmed this relation was

the longitudinal study by Kagan and his colleagues (1988) where the measures of heart period of 21 month old inhibited children were significantly lower than uninhibited children in different laboratory social situations.

Heart period variability is 'the time interval between heartbeats', it is correlated with the heart period. The abovementioned study by Kagan et al. (1988) confirmed the expectation that inhibited children would display lower measures of heart rate variability than uninhibited children, and influenced further inquiries and research that used the heart period variability more specifically. Kagan and Reznick (1986) included measures of heart period variability and pupil dilation in their studies of behavioral inhibition and psychological uncertainty in young children. Beidel (1988, cited by Rapee & Sweeney, 2001) found that socially anxious children demonstrate increases in heart rate during a read-aloud behavioural avoidance test, whereas non-clinical controls showed reductions in heart rate in the test.

Although research that has examined the utility and the reliability of the physiological measurements is limited this type of measurement appears strong, at least on the surface. Physiological response measures can be trusted if handled by competent professionals. This is because these instruments are not subjected to experimenter bias as other instruments are. However, Briggs and Smith (1986) reported that studies have not always found a direct correlation between self-report measures of shyness and physiological measures such as heart rate. The absence of a relationship perhaps indicates both complexity in the psychophysiology of the responses and the differences in the way that individuals interpret these responses. In addition, availability, the ability to use the equipment, expense (using such equipment for measuring large number of children would not be economically feasible), and the general instability of certain responses appear to hinder the involvement of such measurements for the purposes of

research and assessment (Rapee & Sweeney, 2001). However, these findings suggest that it is important to examine shyness from all available approaches and to combine these complementary sources of information in the study of shyness (Briggs & Smith, 1986).

3.6.6 Conclusion

The examination of methods of shyness measurement presented in this section found that shyness measures have been revised, developed continuously, and sometimes integrated in order to have further benefit. Five measures of shyness were compared and the factor structure underlying the construct of shyness was examined by Jones, Briggs and Smith (1986). Studies showed that shyness has many distinctive features, including anxiety, inhibition, and reticence. Its measures were valid, reliable and empirically distinct from measures of related constructs. There are different measurement approaches that have been proposed to identify and/or measure shyness in its cognitive, affective, behavioural and somatic or physiological components. These approaches include: shyness self-reports, shyness scales, psychophysiological measures, behavioural observations, and teachers' and parents' ratings and checklists. However, Crozier (1995) reported that these measurement approaches are not equally useful for all ages, and research into early childhood shyness relies upon observations, and the coding of children's behaviour – using checklists – such as teachers' and parents' ratings. Thus, similar to other research, the present researcher chose teachers' nomination as the method used to identify two groups of children, shy children and non-shy children, in the class setting, for the study sample. This was followed by teachers' and parents' checklist ratings of the children's shyness. These methods were used because they have considerable advantages:

They are appropriate methods because the researcher cannot conduct a shyness self report questionnaire because young children's attention span is limited and they do not possess sufficient reading and writing skills (Borg & Gall, 1983).

Teachers' ratings (teachers' shyness checklist) were used along with the teachers' nomination in order to ensure the consistency between teachers' nomination and their ratings of their children's shyness.

As the researcher had a limited time to perform fieldwork in her country, teachers' and parents' ratings are considered a time saving tools.

Parents' ratings method (parents' shyness checklist) was used in order to see the extent to which the parents agreed with the teachers' opinion about their children's shyness.

The present study was limited to measure children's shyness when they were in a classroom setting, therefore the researcher did not need to use parents' nomination or any additional methods.

Similar to previous research in the field of classroom studies, the researcher adopted the observation method which was influenced by Rubin and his colleagues' research into observation of children's solitary play. The observation method was used to assess shy and non-shy children's verbal behaviour during the two free play sessions in the classroom. Observation was found to be a suitable method that fits the present study's setting and purpose.

3.7 Gender Differences in Children's Shyness

The issue of possible gender differences in shyness has been the subject of many studies. Some studies with children, adolescents and adults showed that females are somewhat shyer than males (Stoppard & Kalin, 1978; Porteous, 1979; Elkind & Bowen, 1979; Jones & Russell, 1982; Lazarus, 1982; Al-Ansari, 1993; Habib, 1992; Al-Samadoni, 1994; Crozier, 1995; Al-Nyal & Abo-Zyed, 1999). However, other studies of adolescents and adults showed that males are shyer than females (Pilkonis, 1977b, Zimbardo, 1977). There have also been studies that indicate no gender differences in adolescents and adults (Cheek & Buss, 1981; Cheek et al., 1986).

Crozier (2001a) argued that as sex roles develop in children from an early age, the gender differences on shyness should be noticeable. Asendorpf (1987, cited by Crozier, 2001a), for example, studied the interaction of four year-old children with an adult stranger. He found that at the beginning boys were shyer than girls about initiating contact and looking at the stranger, but after the interaction had begun boys and girls were equal in the pattern of observed behaviour. However studies have found nonsignificant sex differences in observed and parent-rated shyness at age two and four years (Rowe & Plomin, 1977; Simpson & Stevenson-Hinde, 1985; Mullen et al., 1993; Rubin et al., 1997; Rubin, Nelson, et al., 1999).

Leary (1983) has argued that the existing data on gender differences in shyness across all ages are inconsistent and inconclusive. The inconsistency of findings concerning gender differences in shyness in the literature can be explained by differences in socialization, biological genetic factors, and the samples of participants surveyed.

Burgess et al. (2001) examined the parenting characteristics that are associated with shyness and withdrawal in boys and girls. They found that there is a relationship

between the quality of the parent-child attachment and the display of shyness in boys but not in girls. The insecurely attached boys are shyer than their secure male peers (Renken et al., 1989). On the other hand, parents of inhibited and shy toddlers and pre-school girls (but not boys) were more likely to be warm, responsive and sensitive (Engfer, 1993).

A complex pattern of gender differences was found in a study by Stevenson-Hinde and Glover (1996, cited by Burgess et al., 2001) of 4-year old boys and girls who were classified as either low, medium or extremely shy. Through observation of mother-child interaction at home it was found that mothers interacted more positively (sensitive, gentle and relaxed) with extremely shy boys than they did with extremely shy girls. In contrast, while undertaking a joint activity, medium-shy girls were treated more positively by their mothers than were either the extremely shy girls or medium-shy boys. Crozier (2001a) argued that because of the small number of children in the Stevenson-Hinde and Glover study, it is difficult to interpret the pattern of findings. Nevertheless shy boys, even at this early age (four year-olds), elicited a different response from their mothers than did the shy girls. The study suggested that any gender differences obtained may depend on the level of shyness or inhibition among children. Stevenson-Hinde and Shouldice (1993) reported that parents had different attitudes towards their children's shyness regarding it as less acceptable in boys than in girls. In addition, Bronson (1966) pointed out that in terms of social stereotypes it is more appropriate for girls to be seen as shy than it is for boys.

Burgess et al. (2001, p. 146) argued that

not only is it important to examine whether parents treat shy/withdrawn boys differently than girls, but also whether boys also respond differently than girls to parental behaviour.

They also noted that the literature suggests that parents differ in the way they behave towards their sons when they display social reticence but not towards daughters when they do so, and the one constant among boys and girls is the unnecessarily high level of control parenting during situations associated with the display of social reticence (Burgess et al., 2001).

Crozier (2001a, p.72) raised several questions such as

Is shyness more acceptable in girls? Does a shy son worry his parents in ways that a shy daughter does not? If so, does this reflect a cultural stereotype of girls as modest, unassuming and indeed 'nice', and of boys as powerful and having to stand up for themselves, in short, 'being men'.

Crozier argued that people have to be careful when asking this type of question which may lead to the labeling of children as shy or non-shy. Nevertheless, different types of shy behaviour might be difficult for parents of shy boys to accept but other types might be satisfactory.

Kerr (2000) also reported a complex pattern of significant interactions involving gender and the emergence of shyness in predicting adult psychological well-being and social relationships.

A review by Rubin and Coplan (2004, p. 514) concluded that social withdrawal (including shyness) “*is more strongly associated with indices of social maladjustment for boys than for girls*”. Recently, Coplan and Armer (2005) found that shyness was positively correlated with teacher-rated asocial, solitary behaviour for boys but the correlation was negative among girls.

In the present study, gender differences in shyness and vocabulary were tested as well as differences in the observed verbal behaviour of girls and boys in both “Show

and Tell” and free play sessions. In line with Coplan and Armer’s study of the statistical interactions involving gender and vocabulary in predicting prosocial or withdrawn behaviour, perceived competence or acceptance the present study also examined interaction effects involving shyness and gender.

Chapter Four

Theories of Childhood Shyness

4.1 Introduction

The chapter reviews theories of shyness that draw distinctions between different kinds of children's shyness. Of the many theories of shyness, five deal with shyness in children. Kagan distinguished between two types of young children; inhibited children who are consistently shy, timid, and fearful, and uninhibited children who are sociable, bold, and fearless when confronted with strangers or unfamiliar situations. As discussed in Chapter Three, Buss's theory (1980, 1986) made a distinction between early appearing fearful shyness and late appearing self-conscious shyness. Lewis (1995) distinguished between shyness that arises in the first year and is entirely avoidant and negative, and two forms of embarrassment, self-exposure and self-evaluation. Asendorpf's (1993a) theoretical view is that childhood shyness is a result of the interaction of at least three distinct phases of shyness during development: temperamental shyness, social evaluative shyness and unsociability. Finally, Rubin distinguished between two types of socially withdrawn children. The first is withdrawal due to shyness and the other type is a withdrawn child who is not necessarily shy but prefers to play alone (Rubin et al., 2003; Rubin & Coplan, 2004). These theories are discussed in the following sections.

4.2 Kagan's Theory of Behavioural Inhibition

There is evidence that some two year old children are always shy, timid and wary with strangers or in unfamiliar situations, whereas others are sociable and exploratory. To avoid confusion arising from an everyday word Kagan labelled children who were consistently shy, timid, and fearful as *behaviourally inhibited*, and children who were sociable, bold and fearless as *uninhibited* when encountering unfamiliar rooms, people, objects, and temporary separation from the mother (Kagan, 1989a).

At Harvard University Kagan and his colleagues have been studying inhibition as a temperament that is marked by behaviour such as crying, withdrawal, timidity, and inhibition of vocal and motor behaviour when children encounter novelty, such as new places, events or people (Garcia-Coll et al., 1984). In their laboratory, Kagan's group studied two groups of Caucasian children from middle and working class families who were selected at either 21 or 31 months of age. At the beginning of the study the parents of a wider sample of children were contacted by telephone and asked a series of questions about their children's behaviour in unfamiliar situations. On the basis of these interviews, 60 children were classified as inhibited and 60 as uninhibited, with equal numbers of boys and girls in each group. The original classification into one of the two temperamental groups required a child to show consistent withdrawal or approach to a variety of incentives. Following the interviews, 117 of the children came to Kagan's laboratory and were observed in unfamiliar situations such as meeting unfamiliar adults or being exposed to novel toys and objects. The researchers observed children's behaviour in six episodes. An index of inhibited or uninhibited behaviour was based on the child's behaviour with an unfamiliar female examiner, unfamiliar toys, an unfamiliar peer of the same sex and age, and reaction to temporary separation from the

mother. Inhibition was interpreted in terms of fussing, crying, making distress calls, long latency before interacting, immediately retreating from unfamiliar people or objects, maintaining proximity to the mother, and the absence of spontaneous interaction with the researcher across all six episodes (Kagan, Reznick, & Snidman, 1987; Crozier, 2001a).

Physiological measurements such as heart rate and heart rate variability were taken. Each parent also completed a questionnaire about their child's temperament. Finally, the children's responses to unfamiliar situations in everyday life were investigated by interviewing each mother. Applying a set of observational measures carried out in the laboratory the children were categorized as inhibited or uninhibited. This allowed the researchers to examine the consistency of classification across different contexts of measurement such as home versus laboratory and parents' judgments versus researchers' classifications (Crozier, 2001a). An operational definition of inhibition was also presented by Kagan which included behaviours such as long latency in approaching unfamiliar children, adults, toys or objects, staying too long near the mother, and not engaging in social interactions such as playing and verbal communication (Kagan, 1989a).

In addition, Kagan, Reznick and Snidman (1987, 1988) reported that inhibited children have a greater interference with memory, an accelerated heart rate and papillary dilations when encountering challenging cognitive tasks. Inhibited children when observed in preschool classrooms were isolated, withdrawn and quiet. Additionally, they showed poorer recall of a story in the correct chronological order when using a set of coloured pictures to re-tell a story.

Kagan (1989b) suggested that cognitive tasks generated more uncertainty in the inhibited group, which resulted in their poorer performance. Another argument

maintains that inhibited children in a novel context or when presented with challenging cognitive tasks generate more cognitive possibilities of events that might occur in the future and, being unable to resolve them, become uncertain. This hypothesis might explain the higher heart rate when encountering cognitive tasks.

Researchers have found support for the hypotheses proposing the physiological basis for inhibition. Kagan and his colleagues presented data displaying a correlation between selected peripheral physiological characteristics and behavioural reactions in young children to unfamiliar and cognitively challenging events. Accordingly they contended that individual differences in behavioural reaction to the unfamiliar, threat, or challenge are due in part to the two temperamental groups which differ in peripheral and physiological characteristics in ways that involve differences in the threshold of excitability of the amygdala and its projections to the sympathetic nervous system. Inhibited and uninhibited children provide good evidence, as they differ in the magnitude of cardiac acceleration and magnitude of rise in diastolic blood pressure when their posture changes (Kagan, Reznick & Snidman, 1987; Kagan, Snidman & Arcus, 1993; Kagan, 1989a; Reznick, et al., 1986). Further studies have suggested that characteristics of inhibited and uninhibited children show good evidence of heritability (Kagan, Snidman & Arcus, 1993) and stability over time (Asendorpf, 1993b).

Finally, it is important to note that Kagan refers to shyness as inhibition which is elicited by interaction with people, not encounters with objects or places. He argued that shyness should not be equated with inhibition, this is because not all shy children have an inhibited temperament and some inhibited children may not be shy (Crozier, 2001a).

4.3 Buss's Theory of Shyness

The second theory that relates to children's shyness is that of Buss. Buss distinguished between two types of shyness: early-developing (fearful) shyness and later-developing (self-consciousness) shyness (Buss, 1980, 1986, 1997).

4.3.1 Fearful Shyness

Many infants in the second part of the first year display fear and wariness towards strangers, often retreating or crying; these reactions occur mainly when the infant encounters unfamiliar people, usually adults. This type of shyness is sometimes called stranger anxiety or anxious shyness. The child's fearfulness may depend on who the stranger is, although Smith and Sloboda (1986) found that different adults have the same impact on infants' anxiety. Infants who were afraid of one stranger were afraid of all or most of them.

Buss (1986) argued that fearful shyness occurs not only among human infants but also amongst the young of most mammalian species.

Fearful shyness tends to decrease as children grow older. Children gradually achieve better motor control, become less emotional, and gain familiarity with social situations. After repeated encounters, non-threatening strangers are no longer unfamiliar and become less likely to evoke fear. Children gradually develop their own strategies for coping with possible threats. Thus, most children leave behind their fearful shyness. However, for some children, it persists. As behaviours such as crying and attempting to escape lessen, the child's behaviour becomes more characteristic of adult shyness, involving inhibition of speech and interaction (Buss, 1986).

Buss (1986, 1997) outlined several immediate and enduring causes which are summarized in the following section.

4.3.1.1 Immediate and Enduring Causes of Fearful Shyness

Social novelty is the major immediate cause of fearful shyness. Fearful shyness, attributed to anxiety in the presence of strangers, may also be caused by two other conditions. First, *“intrusiveness, even when the other person is moderately familiar, if he or she approaches too quickly or moves in too close, the infant may be frightened”* (Buss, 1986, p. 40). Older children and adults may have a similar reaction. Social psychological research has established that each individual has a personal spatial zone that he/she prefers not to be penetrated by others. Intrusiveness can also be psychological, when others disclose or ask intensely personal information. Either way, older children and adults can find this threatening, and react by becoming inhibited and seeking to escape from the situation. The second condition that causes fearful shyness is social evaluation (Buss, 1986). Once past infancy, children are increasingly exposed to social evaluation and they frequently encounter situations that can elicit fears of social evaluation such as making mistakes when answering questions in the classroom, being criticized, making another person angry, and reciting in class (Miller et al., 1972, cited by Schlenker & Leary, 1982). For adults the evaluation occurs in situations that may be aligned along a continuum from explicit to implicit. The more explicit is the evaluation, the greater the possibility that shy behaviour will be exhibited. Thus when in a job interview, being introduced to new people, giving a speech, being in a room full of strangers, or dating someone for the first time, many people are stiff and inhibited, some freeze and have difficulty in speaking normally (Buss, 1986, 1997).

Buss reported that there are different personal and social criteria used in this evaluation: attractiveness, friendliness, social skills, and conformity to particular social rules of behaviour. When an individual is rejected by others or recognizes that he or she has failed or will fail a social test, he or she becomes worried and socially cautious. It

becomes difficult to cope with evaluation situations with such wariness and social inhibition. Rejected people are more likely to be socially wary. According to Buss (1986, p. 40),

The worry and social inhibition – that is, fearful shyness – occurs only in adults and older children who have been socialized sufficiently to be aware of the appropriate standards and the negative consequences of failing a social evaluation.

Some psychologists (Schlenker & Leary, 1982) propose that those who are concerned with social evaluation of their self-presentation are susceptible to shyness. Schlenker and Leary assume that people intentionally and unintentionally assert particular self-images that include characteristics which could be identified by particular aspects of their appearance and behaviour. These images are schemas of persons and determine how individuals are defined and treated not only by themselves but also by others. People struggle to maintain a favourable impression in others and they may worry about their ability to convey a proper impression. As a result of their fear of negative evaluation, they become socially inhibited.

Plomin and Daniels (1986) and Matheny (1989) assumed that the enduring causes of fearful shyness are specific to anxious shyness. They involve children's characteristics that occur early in childhood, or involve events that are known to affect only anxiety.

Specific types of life experiences may lead to fearful shyness. Buss (1997) reported an example of children who are raised in rural isolation, where the only social contacts available are those that take place in school, so that they rarely encounter strangers and have few acquaintances. These children may be more likely to be shy. Such an upbringing means that those children do not have the opportunity to habituate

to the novelty of encountering strangers or unfamiliar social contexts. They maintain their fear of strangers and remain anxiously shy. The opposite of this variable can be seen as an indicator for its importance: when children are exposed repeatedly to strangers and strange places. Children of members of the Army or Air Force are an excellent example of this experience reported by Buss, as their parents move from one base to the next, sometimes overseas, every three or four years (Buss, 1986). Those children not necessarily are not shy and their type of life may make them better equipped to cope with their shyness.

Finally, Buss (1997, p. 115) stated:

As with any chronic fear, the trait of anxious shyness can be acquired through traumatic avoidance conditioning. A young child may be treated roughly by strangers or sharply rejected by peers. It may require only a single bad experience for the child to acquire a lasting tendency to avoid social novelty.

4.3.2 Self-Conscious Shyness

Self-conscious shyness represents extreme awareness of oneself as a social object. It is a feeling of psychological nakedness, as though one were completely exposed to others. It often leads to blushing, but one can experience keen public self-awareness without embarrassment” (Buss, 1997, p. 116).

Reddy (2001) reported that indications of self-conscious shyness, which arises from the development of a social-self and a cognitive-self after age 5 years, include blushing, gaze aversion, silliness, funny smiles, a nervous laugh, and hands covering the mouth or entire face. Overpraise, rudeness, breaches of privacy, lack of skill and conspicuousness can elicit this form of shyness. Such public self-awareness seems to be

a general outcome of social interaction. Children learn from their social context that others are observing them, scrutinizing their appearance, manners and other social behaviour. After such learning children will develop the requisite social awareness and may become aware of their own observable aspects, whether they are similar to those around them or are different. This tendency to focus on the self as a social object and the worries associated with it are not present in infants because they lack not only socialization training but also the necessary cognitive ability that appears only in older children and adults (Buss, 1986).

Crozier (1998) claimed that self-consciousness is central to shyness and has implications for its development. He suggested that because self-consciousness involves taking the perspective of another individual a level of cognitive development is required that may not be reached until the age of four to five years. Asendorpf (1989b, 1993b) also argued that the cognitive ability of children in their early years is not sufficiently developed to support the types of thinking about one's self necessary for self-conscious shyness.

Due to lack of cognitive development, infants can not distinguish between shared and unshared feelings, and do not know that others have a different perspective. By the fourth or fifth year of life these advanced cognitions start to develop, and children become able to have a sense of themselves as social objects. They have the ability to realize that certain feelings or tendencies should not be exposed to observation. As soon as children possess this sense of a social self, they become able to blush about something and are susceptible to embarrassment and self-conscious shyness (Buss, 1986).

Crozier (2001a) reported that there is a high degree of consensus between psychologists that self-consciousness is at the heart of shyness. Cheek and Watson

(1989) for example, include self-consciousness and fear of being evaluated in their definition of the cognitive component of shyness. Self-consciousness was also identified by respondents to the Stanford Survey as the most frequently endorsed characteristic of shyness. The unpleasant state and the negative quality of shyness are due to an individual's awareness of the conflict between the self-image that is wanted and the image that is projected to others (Harris, 1990).

4.3.2.1 Immediate and Enduring Causes of Self-Conscious Shyness

Buss (1986, 1997) identified several immediate and enduring causes of self-conscious shyness, the most important of which are summarized in this section:

Conspicuousness is the most important immediate cause of self-conscious shyness. Most people dislike to be stared at or to be observed closely because this makes them feel exposed. When children are taught to be aware of themselves as social objects, their parents often tend to correct any mistakes that their children make. Therefore, public self-awareness can easily become associated with criticism. Usually, when people stare at someone, he/she wonders what he/she has done wrong to attract this attention. Such discomfort becomes stronger when some aspect of oneself (clothes, hair cut, or manners) is supposed to be ridiculous. Teasing often leads to embarrassment and shyness, for example, when people tease others about their physical features. However, even well meaning social behaviour can cause embarrassment, for example, over-praise.

An additional source of conspicuousness reported by Buss (1986) is being demonstrably different from others. For example, black students on some college campuses stand out among white students as they represent a low percentage of the student population. Being so obviously different draws attention to oneself and inhibits social behaviour. In such circumstances a person will keep quiet in order to not draw

attention to oneself. People become acutely aware of their uniqueness in many brief occasions, for example, a woman waiting for her husband in the barber shop or a small boy in a high school playground (Buss, 1986).

Moreover, conspicuousness also arises from breaches of privacy that relate to physical anatomy or confidential matters that might be made public. All societies teach their children to be physically modest in appearance. In addition there are thoughts, feelings, and ambitions which are considered personal and private matters. When these sensitivities are disclosed accidentally or suggested by someone when teasing, most people become not only self-consciously shy but also embarrassed (Buss, 1986).

One of the most important enduring causes of self-conscious shyness stated by Buss (1997) is when ridicule and teasing are used excessively in socializing children, resulting in a child being at risk of extreme self-conscious shyness. The association between conspicuousness and embarrassment is one outcome of the socialization of children. Parents, teachers, and peers usually single out a child for particular attention when the child has done something wrong. The attention is manifested by teasing, ridiculing and causing embarrassment. After having experienced this repeatedly, a close link is formed between conspicuousness and embarrassment.

An obvious problem with physical appearance is another enduring cause of self-conscious shyness, for example, obesity and awareness of the public's perception of overweight people and the feeling of shame. Another example is children with a stammer who are often mercilessly teased by playmates (Buss, 1997).

An additional enduring cause of self-conscious shyness illustrated by Buss (1997) is poor social skills. People vary in the degree to which they acquire social skills that make it easy and pleasant to deal with others; some of them do not know how to ask for help from their neighbours or simply how to talk and create good relationships. Most

adults are expected to have acquired these skills: how to listen and seem attentive, maintain eye contact without staring, offer or receive a compliment, direct attention away from oneself, acknowledge making a mistake, etc. Lack of these social skills also contributes to low self-esteem, which can further intensify self-conscious shyness.

4.3.3 Comparison

Buss (1986, 1997) compared the two kinds of shyness as shown in Table 4.1. People are the source of fearful shyness which differs from other fears. Fearful shyness is similar to other fears in the nature of the reaction to the frightening stimulus. These reactions involve one or more of the following three components reported by Buss (1986, p. 43):

(a) a motor component, which consists of attempts to shrink back, to escape, or to avoid the situation; (b) a physiological component, which involves activation of the sympathetic division of the autonomic nervous system and therefore a potentially intense state of bodily arousal; and (c) a cognitive component, which consists of concern over past fearful situations and apprehension about future social situations.

Self-conscious shyness does not involve fearfulness but includes feelings of being awkward, foolish and vulnerable. The three possible factors of the reaction are:

(a) a motor component, which consists mainly of fumbling, disorganization, and inhibition of social behaviors; (b) a physiological component, which is present only in embarrassment and then only when the parasympathetic division is activated in blushing; and (c) a cognitive component, which is acute awareness of oneself as a social object (Buss, 1986, p. 43).

Fearful shyness does not require a special, advanced sense of self, thus it can occur in mammals and in human infants where there is only a primitive, sensory self. Self-conscious shyness is present only in older human children and adults because it involves public self-awareness, which requires an advanced, cognitive self. Though fearful shyness may occur in the first year of a child's life, it may also take place later because two of its immediate causes (novelty and intrusion) may occur at any time in life, starting in infancy. Social evaluation, however, does not begin until the child is several years old.

By definition, the influence of the causes of self-conscious shyness will not begin until the fourth or fifth year of life. Thereafter, they begin to have an impact on the developmental sequence listed in Table 4.1 Focus of attention is the earliest cause of self-conscious shyness. However, for children to become sensitive to being uniquely different from others it may take a few more years before they start to worry about their privacy being breached. The implications of teasing are crucial especially in adolescence, when teenagers develop an advance sense of privacy. After the completion of socialization formal situations normally become an important cause of self-conscious shyness, starting in adolescence (Buss, 1986).

Table 4.1 Fearful versus Self-Conscious Shyness

	Fearful	Self-Conscious
Emotion	fear, distress	embarrassment
Autonomic reactivity	sympathetic	parasympathetic
Present in	mammals, human infants	human: older children and adults
First appearance	first year	fourth-fifth year
Immediate causes	Strangers, novel setting, novel social role, evaluation poor self-presentation	Conspicuousness, breach of privacy, Teasing, ridicule Over-praise, foolish actions
Enduring causes	heredity, chronic (low) sociability (low) self-esteem isolation avoidance conditioning	socialization public self-consciousness history of teasing, ridicule (low) self-esteem negative appearance poor social skills

Based on Buss (1986, p. 43), Buss (1997, p. 121).

4.4 Lewis's Theory of Shyness

Lewis (1995) distinguished between shyness that emerges early in the first year and is related to fear, not to evaluation, and two types of embarrassment which arise later, the first type is self-exposure, and the second one is self-evaluation. The findings from a series of studies by Lewis (1990) suggested that shyness may differ from the two later forms of embarrassment. Since it appears very early, during the first eighteen months, it is fearful, elicited by novel situations and persons, and does not involve an evaluative component. Lewis (1995) also pointed out that the natural cues to fear are age-related, or dependent on development or maturational processes. Fear of strangers cannot occur in the first few months of life, because the child has not developed the perceptual-cognitive ability to discriminate familiar from unfamiliar faces (Izard, 1977). Shyness, like fearfulness, Lewis argues, is more likely to be a biological than a psychological variable. This relates to Kagan's concept of inhibition, where children

identified as “inhibited” also appear shy, withdrawn, uncomfortable and fearful in social situations. Therefore Lewis’s own observations and those of others indicate that shyness is linked to a group of factors not necessarily related to self-evaluation.

In a study by Lewis et al. (1989) the mirror-rouge technique was used to differentiate the age of onset of visual self-recognition and its role in the experience of shyness and embarrassment. The results indicate that no infants (aged 9-24 months) showed self-recognition on the mirror test until 15 to 18 months of age, and embarrassment but not wariness was related to self-recognition.

Lewis (2001) suggested that there may be two types of embarrassment: exposure and evaluation, each having different developmental timing and being associated with different cognitive processes.

The first type of embarrassment is elicited by exposure, and seems to be similar to shyness more than, say, to shame. People become embarrassed in certain situations of exposure. Unlike shame, the first type of embarrassment is not related to negative evaluation. Perhaps a person being complimented provides the best example. Buss (1980) has suggested that different social rules for modesty are elicited when one is complimented, which are difficult to learn for infants younger than 15-18 months of age. People’s response to their public display is another example of this type of embarrassment, such as when people observe someone looking at them, they are more likely to become self-conscious, to look away, and to touch or adjust their bodies. Observed people appear either pleased or frightened but rarely, say, sad (Lewis, 1995). Moreover, the exposure does not have to be about the physical presence but can extend to private matters in one’s life.

There is an evaluative component in many examples of embarrassment where self-exposure is the actual elicitor. A person who arrives early for a meeting may attract

attention. This situation may endorse a negative self-evaluation: “I should have waited outside until the time of the meeting” (Lewis, 2001).

The experience of embarrassment may not be caused by negative self-evaluation, but by simple public exposure. However, rather than believe that it is the exposure alone which produces the embarrassment, people choose to look for a negative evaluation. In other words, the negative evaluation follows embarrassment due-to-exposure as people attempt to explain to themselves why they are embarrassed (Lewis, 2001, p. 106).

The second type of embarrassment is related to negative self-evaluation and to shame. Embarrassment and shame may differ in their strength, depending on the nature of a standard that has been failed. People have different standards which differ in importance to one another. Violation of these less important standards is likely to elicit a less intense form of shame (Lewis, 1995). Lewis (2001, p. 106) reported the following example,

failure at driving a car may be embarrassing rather than shaming, if driving is less related to the core self. On the other hand, failure at driving a car may be shaming, if it is a core capacity.

This example shows some association between embarrassment and shame (Lewis, 1995). In addition, evaluative embarrassment (like exposure-embarrassment) always needs a socially present audience. Shame does not (Lewis, 2001).

Exposure-embarrassment occurs at the point when the idea of ‘self’ exists and is utilized in social interaction. Some children are embarrassed when they become the centre of other’s attention in social interactions, and they are aware of the other’s

attention toward them. This capacity, unlike evaluative embarrassment, emerges in the second year of life (Lewis, 2001).

The degree to which children display “exposure-embarrassment” differs from one child to another, some show extreme forms, while others do not show any. Those showing extreme forms have been called shy or inhibited. Lewis (2001) argued that the different ways of rearing children are less likely to influence the individual’s form of embarrassment. Instead embarrassment might be due to temperament-like variables.

Individual differences

are more like biological than learning differences and may be related to how well children can regulate their emotional arousal
(Lewis, 2001, p. 114).

Lewis (2001) regarded exposure-embarrassment as a normal emotion that requires the cognitive capacities to represent the self to one-self, and to notice the attention of others towards one’s self. According to Lewis, the middle of the second year of a child’s life is the time when these cognitive capacities emerge. While embarrassment is a normal emotion which all people have, observation of toddlers and young children reveals that when they become the focus of others’ attention some children show more embarrassment than others. This individual difference may have, as Lewis (2001, p. 107) proposes, “*its roots in individual differences in self-attention and in temperament*”.

Evaluation-embarrassment requires a considerable degree of cognitive development since it is based on the child’s abilities to evaluate the self relative to a standard. This level of cognition requires that the child has a standard and can apply that standard to his/her own behaviour. Such cognition emerges only after 24-30 months of age. Individual differences in evaluative embarrassment depend mostly on child-rearing

practices that include different standards and how they are taught and enforced by the parents. Evaluative embarrassment also involves cognition about others' awareness of oneself. While it is similar to shame in many ways, it differs in that it is a less intense negative emotion and takes place in a social context, whereas the emotion of shame does not necessarily (Lewis, 2001).

4.5 Asendorpf's Theory of Shyness

Asendorpf has suggested that different types of shyness arise in real or imagined situations and emerge as a result of two opposing motivational tendencies, social approach and social avoidance, which he assumes to be largely independent of each other (Asendorpf, 1990a). Application of this approach to interindividual differences results in three subgroups of socially withdrawn children – unsociable, shy, and avoidant. According to Asendorpf (1990a) shyness emerges from an approach-avoidance conflict, and he assumed that shy children are less involved with their peers because they are often trapped in an approach-avoidance conflict. Those socially reticent children wish to engage in play with their peers but cannot seem to enter the social playgroup successfully.

Depending on the resolution of this conflict, they should show more inhibited approach behavior (e.g., wait-and-hover and onlooking), more behavior indicating a compromise between approach and avoidance (e.g., parallel play), and less social interactive behavior (conversation and group play) (Asendorpf, 1990a, p. 254).

This is contrasted with the second type of shyness that Asendorpf (1990a) describes as “unsociable”: children, who are less involved with peers because of a low approach motive, not because of a high avoidance motive. These children may be more

interested in playing with objects than with peers. Asendorpf (1990a) suggested that children in a low approach/low avoidant group displayed behaviour characterized by ignoring others. However, Schmidt and Fox (1999, p. 50) argue that

this category which is often mistakenly labelled as another shyness category – comprises the early origins of introversion. That is, children in this group apparently are not bothered by having to interact with others; they just do not have a preference to do so.

The third type of shy children is described by Asendorpf as “avoidant”. These are children who are high on avoidance and low on approach motivation. Certainly some children clearly avoid peers, with little sign of ambivalence.

There appear to be different developmental outcomes associated with each of these types. Fox et al. (1995), for example, stated that children who experience an approach-avoidance conflict tend to be described as socially reticent and experience a high degree of anxiety in socially evaluative situations. Children who are high-avoidant/low-approach are often described as socially withdrawn and, in some instances, as depressed (Rubin et al., 1995).

According to Asendorpf (1993b), extreme shyness is the final common pathway for two different kinds of inhibitory processes: inhibition towards unfamiliar partners and inhibition due to fear of being ignored or being rejected by others. This view is consistent with Gray’s (1982) physiological model of inhibition where inhibition is aroused by novel stimuli and by conditioned cues for frustrative non-reward and punishment. In the light of this view, Asendorpf separates inhibition to adult strangers which arises early in development from inhibition to social evaluation (for example, inhibition in class) which arises later in development. Asendorpf (1993a) proposed that three different immediate causes could contribute to the low rate of social interaction in

a particular social situation: a high social avoidance motive (shyness), a low approach motive (unsociability), or a lack of acceptance by peers (social rejection and neglect). The first two causes are seen to reside in the child as the child withdraws from others; the last cause is attributed to the child's peers where the child is isolated by others. Asendorpf added that the interactions of these three sources of interindividual differences produce the many faces of solitude in children.

The design of the present research includes observation of children during free play, which follows Rubin's work on the observation of solitary play and behavioural withdrawal in children. Therefore it is relevant to review Rubin's theory of social withdrawal shyness in children.

4.6 Rubin's Theory of Shyness and Social Withdrawal

Rubin et al. (2003) reported that the child who interacts with peers at a less than normal rate is often referred to as "socially withdrawn". Similarly, the child who is observed to spend more than an average amount of time alone is labelled a "socially withdrawn" child. The terms "social withdrawal", "social isolation", "inhibition", and "shyness" have been used interchangeably in the literature to describe the behavioural expression of solitude. Although these terms might differ in their psychological meanings, they intercorrelate statistically and are related theoretically.

For the study of social withdrawal Rubin and Asendorpf (1993a) tried to reach definitional clarity: inhibition is defined as the disposition to be wary and fearful in unfamiliar situations. They used fearful shyness as a term to describe inhibition in response to social novelty.

In middle childhood, shyness based on fear of novelty was said to be replaced by "self-conscious shyness" a phenomenon reflected by the display of inhibition in response to social-evaluative

concerns. *“Social isolation” refers to the expression of solitary behavior that results from being isolated (rejected) by the peer group*. ... *“social withdrawal” refers to the consistent display (across situations and over time) of all forms of solitary behaviour when encountering familiar and/or unfamiliar peers* (Rubin et al., 2003, p. 376).

Withdrawal from the company of peers may be based on several motives. Asendorpf (1990b, 1991) provided an example of some children who are more object-oriented than person-oriented, preferring to play alone than engage in social activity; they have been characterized as having a low social approach motive, but not necessarily a high avoidance motive. The typical play of these children when they are observed playing alone during the preschool period is the constructive or exploratory forms of play (Rubin, 1982a). Other children may wish to interact with others in social situations but for some reason are constrained to avoid it. Such children although appearing socially motivated, for some reasons are wary, socially anxious and fearful. When playing alone during the preschool free play those children are observed in being engaged in unoccupied and onlooker behaviours. This pattern is labelled “reticence” (Rubin & Asendorpf, 1993b; Coplan et al., 1994).

Rubin et al. (2003, p. 380) suggested that

Behavioural inhibition in infancy and toddlerhood, and its physiological markers, may be altered or exacerbated through environmental means. For instance, we have suggested that a temperamentally inhibited infant may prove a challenge or stressor to his or her parents. Thus the interplay of endogenous, socialization, and early relationship factors may lead to a sense

of felt insecurity, and ultimately to the chronic expression of social withdrawal.

At the same time, Rubin et al (2003) empirically supported their argument about the physiological changes that may result from experiences that are understood by the child as non-stressful and as supporting a sense of felt security. In empirical research it is relatively unknown whether or not shyness and behavioural inhibition are related to social withdrawal that is defined as the lack of peer interaction in both familiar and unfamiliar settings. Rubin and colleagues reported several studies that support an association between shyness, inhibition, and social withdrawal (Rubin et al., 2003).

Rubin and his colleagues maintained that behavioural inhibition and reticence (shyness) during childhood lead to the display of social withdrawal, and that the differences in emotional and physiological functioning depend on the type of withdrawn behaviour (Rubin, Coplan, et al. 1995). In addition, in all studies (Fox et al., 1995; Fox, Schmidt, Calkins, Rubin, & Coplan, 1996; Fox et al., 2001; Schmidt et al., 1997 & Schmidt, Fox, Schulkin, & Gold, 1999) summarized by Rubin et al. (2003), early inhibition has been linked predictively to frequent demonstrations of inhibition and reticence in *unfamiliar* peer settings. However, social withdrawal among *familiar* peers is what seems to be most developmentally problematic (Asendorpf, 1993b; Rubin & Mills, 1988; Rubin, Coplan, et al., 1995). The predictive and contemporary links between observed reticence among unfamiliar and familiar preschool-age peers were supported by Coplan and colleagues' work (e.g., Coplan & Rubin, 1998; Coplan, et al., 1994). In a study by Rubin, Coplan, et al. (1995) assessments of shyness/reticence with unfamiliar peers and reticence with familiar peers are associated with both parent and teacher ratings of internalizing difficulties. Additionally, Kennedy et al. (2002, cited by Rubin et al., 2003) found that reticence with unfamiliar peers at age 7 years predicted

teacher ratings of anxious/withdrawn behaviour, and mother reported withdrawn behaviour at age 11.

Finally, Scarpa et al. (1995) found that the laboratory measurement of behavioural inhibition at age 3 years predicted social inhibition in school among Mauritian children at age 8. Furthermore, teacher-rated inhibition remained stable from 8 to 11 years.

Rubin et al. (2003) concluded that growing evidence is showing that pathways to social withdrawal with familiar peers have their origins in biologically based dispositional characteristics, the manifestation of socially inhibited and reticent behaviours with unfamiliar peers frequently, and the quality of the child's attachment relationship.

4.6.1 A Developmental Pathway to Childhood Social Withdrawal

Rubin and colleagues have described a developmental pathway model in which infant/toddler inhibition has been implicated in the determination of parenting beliefs and behaviours, which in turn, come to reinforce the development of socially withdrawn child behaviours (Rubin, Nelson et al., 1999).

The pathway to development of a socially withdrawn profile begins with newborns who have inherited a low threshold for arousal when encountering novelty which makes them extremely difficult to soothe and comfort. Rubin et al. (2003) proposed that under conditions of stress and strain, parents of wary babies may consider their children as vulnerable and in need of protection. They may become over-protective. Rubin suggested an interaction between factors of over-protective and over-solicitous parenting and the child's disposition of emotional dysregulation; conditions such as stress with lack of familial support are likely to predict the development of an insecure parent-infant attachment relationship. Crozier (2001a) stated that the child's

temperament might influence his/her reaction to the parent's sensitivity or other characteristics that shape the attachment relationship.

Rubin and his colleagues (2003) provided evidence in support of their argument that *"an emotionally dysregulated infant will prove a significant challenge to parents, especially those who are experiencing stress in their lives"* (Rubin et al., 2003, p. 396) that can lead them to be least advantageous child-rearing styles than are less stressed parents.

Rubin et al. (2003) reported several studies that indicated that parental relationship discord and dissatisfaction or parental psychopathology, such as depression which associated with maternal feelings of hopelessness, have also been associated with insensitive, un-responsive parenting behaviours, lack of parental involvement, spontaneity and emotional support in child rearing, especially when the child was temperamentally difficult. Rubin and his colleagues concluded that with this pattern of parenting behaviours it would not be a surprise if an infant were perceived as emotionally dysregulated. Nevertheless, social support can moderate the effects of stress on parenting behaviors. Rubin and colleagues also propose that the child's temperament, along with feelings of insecurity, predisposes him or her towards behavioural inhibition and socially withdrawn behaviour. The behavioural inhibition precludes the child from the benefits of peer play and social exploration. Thus a developmental sequence is predicted by Rubin and his colleagues, in which an inhibited, fearful shy or insecure child withdraws from his/her social world of peers, and fails to attain social skills that result from peer interaction. Thus the child becomes increasingly social reticent and isolated.

Hymel, Woody and Bowker (1993) stated that withdrawn behaviour has been viewed as a distinct pathway leading to peer rejection. Given that an inhibited

withdrawn child may fail to adequately explore the social and non-social environment and develop social skills, it has been suggested that parents may try to help their children to understand their world and direct their social behaviour by telling the child “how to act and what to do” (Rubin et al., 2003). Such over-protective and over-controlling parenting style will maintain and exacerbate socially withdrawn behaviour.

4.6.2 Rubin’s Typology of Solitary Play

The variety of behaviours that children can display when playing alone was not typically distinguished by researchers prior to Rubin’s work. The terms social withdrawal, behavioural solitude and nonsocial play are used interchangeably for a wide range of underlying mechanisms (Coplan et al., 1994). Children’s solitary play has been investigated through the systematic observation of young children’s behaviour in free play activities. Rubin (1982a), in a study of 122 4-year-old children who were observed for 20 minutes during free play, identified a category of *passive withdrawn* behaviour in children on the basis of observation of their social participation during classroom play. Among this sample of pre-school and reception class children, ‘withdrawn’ or ‘isolated’ children were defined as those children whose observed social behaviour was significantly less frequent than the average of the group. Rather than joining in conversations, withdrawn children spent much of their time looking on and were involved in fewer conversations with other children. Rubin investigated different types of play characteristics of these children. A classification scheme, originally constructed by psychologists studying the development of play, was used to code the observed behaviour. Parten (1932) discovered that social participation among preschool children increased with the child’s age. Parten identified a series of six categories of social play: *unoccupied behaviour*, *solitary play*, *onlooker behaviour*, *parallel play*, *associative play*, and *cooperative play*. Children from 2 to 2½ years old prefer solitary play and

from 2½ to 3½ years old they prefer associative play. A second major early investigation into children's play behaviour is that of Piaget (1962), which classified play into three successive stages according to the degree to which play remains purely sensorimotor, or depends on children's cognitive development. Smilansky (1968) elaborated upon the original Piagetian categories and labelled them as (a) *functional play* (simple repetitive muscle movement with or without objects, and/or making utterances and playing at repeating and imitating them), (b) *constructive play* (manipulation of objects to construct or to create something), (c) *dramatic play* (the substitution of an imaginary situation to satisfy the child's personal wishes), and (d) *games with rules* (the acceptance of prearranged rules and the adjustment to these rules). These four types were coded according to the type of social activity – whether the child was engaged in solitary, parallel or group activities – and placed in rank order according to their level of cognitive maturity drawing upon the findings of previous developmental research. Solitary functional play and solitary dramatic play were regarded as least mature. Solitary constructive play was regarded as more mature. Social dramatic play and games-with-rules were regarded as the most mature. Rubin (1982a) found that withdrawn children were involved in less mature forms of play ; in particular they participated in less social dramatic play and there were no instances at all of playing games-with-rules.

Rubin (1982a) distinguished between two types of solitary activity that children may engage in; he labelled them as *solitary-passive* and *solitary-active* behaviour. *Solitary-passive* (or passive withdrawn behaviour) includes the quiet exploration of objects and constructive play. In early childhood, this type of play may reflect an interest in mastering impersonal tasks. It tends to be encouraged by parents and teachers as time usefully spent in learning and its display is associated with competent problem

solving as well as with peer acceptance. In addition, it is not associated with either reticence or shyness and has not been found to correlate significantly with indices of maladjustment. Coplan et al (1994) found that among 48 4-year-old children grouped in quartets of same-sex unfamiliar peers, mothers' ratings of their children's shyness were significantly correlated with a measure of reticence but were not correlated with passive withdrawn play. However, Rubin argued that by mid-childhood, even though the passive isolated behaviour remained identical, its psychological meaning changed. Thus the frequent exhibition of passive isolated behaviour during free play was viewed by peers as unusual social behaviour (Rubin & Asendorpf, 1993b). Although elementary school children spend much of their time in nonsocial constructive activities such as schoolwork, passive withdrawn play becomes problematic when a variety of social opportunities to engage in group play are presented but the child chooses instead to play alone during free play (even if he/she engaged in constructive play), suggesting that the child might be maladjusted. At this age, passive withdrawal may be a result of social anxiety and negative self-perception of competence (Rubin, 1985, cited by Rubin & Mills, 1988) and reflects psychological uncertainty, negative self-appraisals and insecurity. Such solitary activity in middle and late childhood can lead to peer rejection and the risk of the child developing internalizing disorders such as loneliness and depression (Rubin & Mills, 1988). Rubin, Hymel and Mills (1989) found in a study of reception and grade 2 classes that measures of passive withdrawn play correlated with low self-esteem, loneliness and unsatisfactory peer-group relationships when children reached grades 4 and 5, and also correlated with teachers' ratings of shyness and measures of depression at grade 5. Rubin argued that reticence is associated with the display of passive withdrawal behaviour from 7 to 9 years and consequently it becomes a trait of wariness, fearfulness and social anxiety.

In contrast, active solitude play was based on the categories of solitary functional play and solitary dramatic play. Such behaviours, when displayed during group play, were characterized by repeated sensorimotor actions with or without objects and/or by solitary dramatizing. It is less common and more problematic from an early age. Thus the frequent display of solitary active play during both early and middle childhood was thought to reflect psychological immaturity and impulsiveness. Children who frequently behave in this manner in the presence of a social group are viewed by teachers as impulsive and aggressive and are rejected by their peers (Rubin, 1982a; Rubin & Mills, 1988). However, solitary-active behaviour occurs only about 4% of the time during free play in novel settings (Coplan et al., 1994) making it difficult to observe and study this category of nonsocial play.

In addition to solitary-passive behaviour and solitary-active behaviour, Asendorpf (1991) drew upon Parten's categories of social play to add a third type, reticent behaviour; this is a cluster of solitary behaviours that consists of prolonged staring at the play partner without engaging in play or being occupied. In early childhood this type of nonsocial behaviour has been found to be associated with the overt display of anxious behaviour, hovering behaviour during free play, maternal ratings of shyness (Coplan et al., 1994) and measures of emotion dysregulation (Fox et al., 1995). Additionally, this form of solitary behaviour is related to the concept of inhibition in the face of both social and nonsocial novelty (Kagan et al., 1984), and reflects an approach-avoidance conflict in young children (Asendorpf, 1990b).

4.6.3 Assessment of Nonsocial Play

Researchers who sought to investigate the nonsocial play of young children relied mainly upon behavioural observation techniques. Several scales have been developed to investigate the types of children's play.

Rubin's revised Play Observation Scale (2001), for example, is an attempt to relate the two long-standing play hierarchies: social (Parten, 1932), and cognitive (Piaget, 1962). The extensive use of this scale by researchers has shown that it has proven useful for different purposes such as investigation of age and sex differences in children's play; social economic status differences in play; the effect of different environments in the play settings; individual differences in play; the social contexts within which the various forms of cognitive play are distributed (Rubin, 2001). A further use of the scale is to identify both extremely withdrawn and aggressive children who are at risk of later psychological difficulties. Rubin reported that recently researchers have used his Play Observation Scale (POS) to study behavioural associations with temperament, attachment relationships, parenting, and children's peer relationships. More recently, the POS has been used in the studies of multiple forms of children's nonsocial play by Rubin (1982a), Asendorpf (1990b) and Coplan et al. (1994). The scale follows a norm-based time sampling procedure (each child is observed for six 10-second intervals per-minute during each session of observation) to assess different types of behaviour in a play group situation. Functional (sensorimotor), constructive, dramatic play, and games-with-rules are examined by this scale as they are nested within the social participation categories of solitary, parallel and group activity (Rubin, Maioni & Hornung, 1976).

Coplan and Rubin (1998) acknowledged that the observation method is time consuming and expensive and may not always be possible due to lack of money or a large number of children. Therefore, they developed and validated the *Preschool Play Behavior Scale* (PPBS) as a teacher rating scale designed to assess the multiple forms of young children's nonsocial and social free play behaviour in pre-school.

A primary goal of the present study was to assess the verbal behaviour of shy and non-shy children, including their reticent behaviour, during two sessions of free play. The observation method of the present study and the procedure of the verbal behaviour coding are similar to the POS, where each child was observed for three 20-second intervals per-minute during the two free play sessions as described in the methodology chapter.

4.7 Conclusion: Theories of Shyness and the Current Study

The conclusion, drawn from the review of theories of shyness in children, is that the theories of Buss, Lewis and Asendorpf distinguished between different types of shyness and embarrassment. Buss (1980, 1986, 1997) drew a distinction between early fearful shyness that appears early in infancy and the late self-conscious shyness that appears between the age of four to five years. Lewis (1995) also distinguishes between shyness that arises early in the first year and is wholly fearful and avoidant, and two forms of embarrassment which arise later, the first form is self-exposure, emerging at around 18 to 24 months, and the second form is self-evaluation, appearing at around 3 years. Likewise, Asendorpf (1990a) separated inhibition towards adult strangers which arises early in development – approximately at 8 months and which increases with age – from inhibition to social evaluation which arises later in development – starting from 20 months and continuing into adolescence and adulthood. The three theories paint a developmental picture similar to each other, where the two forms of social inhibition described by Asendorpf are comparable with Lewis’s distinction between exposure and evaluation, and are similar to Buss’s distinction between fearful and self-consciousness shyness (Reddy, 2001). Table 4.2 based on a table in Reddy (2001) points a comparison of different theories

Table 4.2: The Comparison between the Shyness Theories of Buss, Lewis and Asendorpf. Based on Reddy (2001, p. 81)

Theories	Forms of the phenomena	Predicted age of onset in development	Eliciting contexts	Expressive behaviour
Buss (1981,1986)	Two forms of shyness			
	-Early fearful shyness	7 to 9 months (primitive, sensory self)	Novelty, strangers (increased by high tendency to wariness and distress and low sociability)	Shyness: diminution of social behaviour, gaze avoidance; shrinking back or keeping distance; reduced speech; distress, wariness
	-Late (self-consciousness) shyness (public self-awareness, embarrassment)	From 5 years of age (advanced, cognitive self-awareness of self as social object)	Novel contexts; conspicuousness; social roles; over-praise; breaches of privacy, exposure of wrongdoing; ridicule	Embarrassment: tentativeness; blushing; giggling; silly smiles; gaze avoidance
Lewis (1995)	Shyness	Middle of the first year	Strangers, fear	Shyness: reduced sociability: reduction in gaze, vocalizations, smiles and contact
	Two forms of embarrassment:			
	-Exposure –self-evaluation	18 months 3 year	Being observed by others, potential evaluations of performance by others	Embarrassment: smiling, gaze aversion, and face/body touching; coy or silly behaviour
Asendorpf (1990-1993)	Two forms of social inhibition			
	-inhibition towards strangers (wariness)	From approximately 8 months, reactions more extended with age, continues to adulthood	Meeting unfamiliar adults (with peers peak at 20 months)	In infancy: wariness: wary brow with gaze, wary averted gaze, avoidance, cry face or crying. In early childhood: mixture of wariness and sociability; lengthy coy expression of smiling
	-social-evaluative inhibition (evaluative fear)	From 20 months or later; continues into adulthood; strong at adolescence	Anticipation of negative or insufficiently positive evaluation by others (involves perspective talking); embarrassment is a reactive form of the same emotion	With gaze aversion peaks at 3 to 4 years. Embarrassment: blushing, smiles with gaze aversion before apex of the smile ends

Table 4.2 shows that all the three theories (Buss, Lewis, and Asendorpf) link the later appearing forms of shyness or embarrassment with the development of self-consciousness, however, there are differences in the age at which they propose that self-consciousness develops and in the behavioural criteria they use to describe and detect these various forms of shyness and self-consciousness. They suggest that during the last part of the first year of life, a form of shyness is present and they agree that this form of shyness is fearful, and is elicited by novel situations and persons, while later appearing forms of shyness, like embarrassment, are elicited by social evaluation. However, embarrassment is always accompanied by acute self-awareness. Thus embarrassment is a major component of self-conscious shyness, but the two are not equivalent (Buss, 1997).

There is a similarity between Rubin's and Asendorpf theories of shyness. Based on Asendorpf's identification of social withdrawal Rubin distinguished between two types of social withdrawn children; some children prefer to play by themselves in social situations, but if they have to interact with other children they can easily do so and they do not find it difficult, whereas some children find it difficult to do so. The first type refers to quiet or unsociable withdrawn children who are not shy, but the second type refers to withdrawn shy children whose shyness is underlain by the conflict between approach and avoidance. Therefore, not all quiet withdrawn children are shy.

On the other hand, Rubin and Asendorpf (1993b, p. 14) regarded shyness and inhibition as distinct forms of withdrawal:

Shyness is one form of social withdrawal that is motivated by social evaluative concerns, primarily in novel settings. Inhibition is a form of withdrawal characterized by social aloneness or withdrawal in novel settings.



They also distinguished social withdrawal from social isolation and from sociometric measures of neglect (children who receive few peer nominations, either positive or negative) or rejection (children who receive negative nominations, e.g. are disliked). In contrast, Kagan's theory developed in a different way. According to Kagan's theory the origin of shyness is in infancy (Kagan, Reznick & Snidman, 1987). It starts with the emotional temperament of an infant and results in the child showing the characteristics of shyness at the age of two, when the child encounters strangers and novelty.

On the other hand, Kagan and colleagues (1984, 1988) used the terms inhibition and shy to characterize the avoidant behaviour of children faced with social unfamiliarity, and they concluded that fearful shyness is associated with inhibition in new situations, especially in contact with strangers. Kagan also depended on laboratory observation to assess children's inhibition as Asendorpf did in his assessment of socially withdrawn shyness (Asendorpf, 1993b). Moreover, Crozier (2001a) drew attention to a fundamental distinction between the approaches of Buss and Plomin (1984) and Kagan. Buss and Plomin consider temperament as a dimension, and the position of children on the dimension can be measured in terms of scores based on responses to questionnaires and checklists. Therefore, children differ in the degree of their shyness, ranging from extremely shy to moderately shy to hardly shy. Every child can be located somewhere on a continuum of shyness. On the other hand Kagan conceptualizes inhibition as a category to which a child either belongs or does not belong. Thus many children will not belong to either category. According to Kagan, differences between individuals in shyness are qualitative; in Buss and Plomin's theory the differences are quantitative.

Crozier (2001a) indicated important implications of the differences between these theories for the design of studies in the field of shyness in children.

However, none of these forms of shyness match the shyness of the children in the present study; instead their shyness may be explained by a combination of different theories. The two types of shyness in the theories of Buss, Lewis and Asendorpf, for example, refer to shyness as early appearing fearful shyness and late appearing self-conscious shyness. Fearful shyness that elicits reticence in social situations and/or in the presence of strangers may be distinguished in the present study in children's reticence in "Show and Tell" and free play sessions. Thus, shyness of children in the age group of the current study might be fearful shyness but it is not clear if it is also self-conscious shyness. This is because it is difficult to identify self-conscious shyness at this age by using self report questionnaire, where children are required to describe their feelings. It is difficult for young children to do this. Buss and Plomin's checklist that is used to identify shyness in this study was designed to assess shyness as a temperament and could not be described as a measure of self-conscious shyness; its items refer to behaviours rather than to the child's cognitions.

The present study was also influenced by Kagan's and others theories regarding shy children's talk. Kagan's theory defined inhibited children as timid and less talkative. This is obvious in the present study which sought to provide a comparison between shy and non-shy children's talk. Lewis's and Asendorpf's theories refer to shyness as social evaluation inhibition. This may also be evident in the current study in the silence of shy children in "Show and Tell" and during free play sessions.

Buss and Plomin's theory is the prevalent theory that influences the present study in terms of the research design used and the quantitative measures of the differences between shy and non-shy children in their shyness. The study questions were also influenced by this theory which is based on the measures of children's observable behaviours in their interactions with others and about behaving in a shy way

as the teachers see it. The questions of the present study look for the correlation between different levels of shyness measured on the basis of verbal behaviour of children and measures from different aspects of their language development. Therefore it is reasonable to use Buss and Plomin's shyness checklist in the present study in order to distinguish between shy and non-shy children according to their verbal behaviour differences in school settings. Furthermore, the method used to measure shyness is Buss and Plomin's teacher's shyness checklist that measures shyness as a dimension, where children vary in the degree of their shyness. Nevertheless, one argument for using the Buss and Plomin checklist is that it has been used to assess shyness in previous research into children's vocabulary.

The context where shyness was measured was in the social settings of "Show and Tell" and free play – where children's participation in discussion and social activities may differ from child to another. The analysis methods used in the present study were consistent with the correlation design of the study.

Finally, the method that was used in the present study to measure the verbal behaviour of children during free play was influenced by Rubin's methods for observing the different types of solitary play.

4.8 Working Definition of Shyness

In the previous chapter (Chapter 3) concepts and definitions of shyness in children were discussed. Theories that relate to shyness in children were also reviewed in this chapter. The researcher concluded that the most appropriate working definition of shyness that will be used for the present study is as identified in Buss and Plomin Teachers' Shyness Checklist (1984). This definition refers to trait shyness as a tendency to stay away from social interaction and is characterized by reticence and difficulties in verbal communication with other children.

Chapter Five

Shyness in School

5.1 Introduction

The level of education that an individual attains determines to a great extent his or her future aspirations, level of occupation and standard of living in general. It is natural to encounter feelings of stress and anxiety as a result of the pressure exerted by parents, teachers and peers on individuals participating in the educational process especially at high school and college.

Shyness is one of the hidden problems in schools and can affect overall classroom interaction, and the educational process. It is associated with a lack of confidence and with anxiety.

5.2 Shyness in Education

A quotation provided by Zimbardo (1977, p.66) from Marilynne Robinson, a second-grade teacher, summarized the general features of shy children in her classroom.

Children who are shy in the classroom fear running and dancing to rhythm records. Their voices can barely be heard when asked a question, and will frequently answer "I don't know". They are afraid to sing out, speak out, and in general afraid to make mistakes. They sit back and wait for someone to ask them to play. If this doesn't happen, they wander around the playground sometimes finding a "sore finger" so that they may see the nurse.

Such school children were studied and labelled 'invisible' children by Pye (1989). In case studies he found that these pupils try to cope with their difficulties in the

classroom and adjust to the demands of school and to the attitudes of teachers by inhabiting what he calls 'Nomansland', i.e. they adopt a self-protective strategy and maintain a defensive strategy of passive withdrawal. They do nothing, or do the minimum amount of work to avoid drawing the teacher's attention; they never respond to the teacher's questions or volunteer their participation in any activities. Crozier (1997) argued that these strategies for overcoming shyness, though apparently effective, separate the pupils from participation in valuable school activities and hinder them from developing coping strategies that would add to their self-confidence.

Shy children are likely to be less visible in their classroom, because of their quietness and reluctance to initiate both verbal and non-verbal participation either in structured or unstructured situations, in conversation, in asking questions, in elaborating ideas and in asking help. Shy children are not likely to interrupt their peers or disturb the classroom interaction (Evans, 2001). On the other hand, shy children can cause discomfort to their teacher, who may find their silence and short answers unsettling. Some teachers react to their discomfort by asking more questions, which make the children produce shorter responses. Instead of creating the conditions for dialogue teachers are using this way to control the conversation (Evans & Bienert, 1992, cited by Crozier, 1997).

Students who are shy and withdrawn will be likely to have few friends, have difficulty in forming and sustaining relationships with peers, have a poor relationship with teachers in school and be susceptible to loneliness and social isolation. However, they are usually less problematic in the school than those who are disruptive. Nevertheless, their behaviour may be viewed as maladaptive and predicts later psychological difficulties (Crozier, 1997).

Crozier (1997) also pointed out that whenever a child appears withdrawn this may not necessarily be a reflection of specific difficulties with social relationships. The child may simply have become disengaged and lack interest in school generally, which has led to the child's dislike of engaging in school activities. Or perhaps a child is restless and preoccupied with worry about home problems or about maltreatment or bullying at school.

Jones and Gerig (1994) interviewed a sample of 'silent' children who had been observed systematically in their class and identified as such. The children described themselves as shy and lacking in self confidence and tried to avoid being the centre of other pupils' attention.

Whilst quiet, shy and withdrawn pupils agree that their quietness or shyness can be socially limiting they may have different, often contradictory, attitudes to talking in school. Worry about talking in front or with others can make shy pupils feel inadequate, particularly in comparison with their less shy peers, which can also prevent them from taking an active role in their learning. This may result in academic impairment. In a study by Collins (1996, p. 21), the following quotation was provided in an interview with a quiet pupil, Mandy:

I don't talk in class. I don't go out in front and talk in class 'cos too shy ... I don't know how others feel ... 'cos they might get used to it but I don't.

Collins indicates that because Mandy is anxious about talking in front of a group in class she excludes herself from the group conversations of the classroom. By remaining quiet and permitting others who are more vocal members of the class to dominate the discussions, she denies herself precious experiences in which she would gain talking experience and learn through talking.

On the basis of his observations of pupils in their classes and university students in their colleges Zimbardo (1977, p. 68) reported the following characteristics of pupils and students:

- (1) *They are reluctant to initiate conversation, activities, add new ideas, volunteer or ask questions.*
- (2) *They are reluctant to structure situations that are ambiguous.*
- (3) *Unstructured permissive situations, such as dance, create special problems for the shy that are not apparent when the guidelines for appropriate behaviour are spelled out, as in class.*
- (4) *Shy students talk less than non-shy students during most interactions with classmates. They allow more silent periods to develop and interrupt less than non-shy students.*
- (5) *Shy students use fewer hand gestures during interviews than non- shy students.*
- (6) *Shy children spend more time sitting in their seats, wandering less around, and talking to fewer other children. They obey orders and are rarely troublesome.*
- (7) *Rarely are shy children chosen for special duties, such as teacher's errand monitor.*

Zimbardo concluded that shy pupils are distant from their teachers in that they do not engage teachers on personal matters, do not ask or even allow teachers to offer them help or advice, in addition, they offer little or no feedback for the efforts teachers make on their behalf.

5.3 Teacher-Shy Student Interaction

Teacher characteristics may influence the response of shy children in classroom interactions. Zimbardo (1977) explained that, like everyone else, teachers, can be shy, and to these teachers it is not just a routine job as they are required to face new people, talk, lecture, enlighten and even entertain, which can be disrupted by their shyness.

An elementary-school teacher summarized the feelings of a shy teacher:

You're on stage every minute, and you're so conscious of the reaction of the children...they notice everything you wear, your clothes, your shoes, your rings. They even say something if I wear different colour lipstick." Another teacher remembers his first teaching task *"During the first hour, I thought I was never going to make it through the day that I was going to be sick to my stomach, I was so nervous"* (Zimbardo, 1977, p 70).

As a solution to their difficulties some teachers try to anticipate activities down to the last moment. Although a large amount of work is required in a big class, some shy university professors prefer large formal lecture courses to small informal seminars, because they find security in structure. In formal lectures there is a set format, an outline, rules for listening, and not much interruption. Moreover, they can prepare a game plan and most often stick to it as a good way to cover their shyness, whereas less shy professors prefer informal seminars because they find freedom for discussion and exploration of ideas (Zimbardo, 1977). However, the responses of the same group of students will differ according to the personalities of teachers. As teachers' characteristics and teaching styles have differential influences on individual students, Crozier (2001b, p. 61) argued that

an extravert teacher might elicit a lively response from some students but be found intimidating by others. A sensitive teacher might increase the rate of participation of shy students but have little effect on other members of the class. A teaching style that involves direct questioning of individuals might produce more participation among shy students than a style based on questions posed to the whole class where the shy person will be reluctant to speak up.

On the other hand, reticent behaviour impacts on others. Teachers are also sensitive to a student's shyness. The evidence can be concluded from a systematic observation of 135 children ranging in age from 33 to 66 months in preschool. Coplan and Prakash (2003) identified a group of preschool children who initiated few interactions with their teachers although they frequently received teacher-initiated contact. Those children were identified by their teachers as more anxious, socially withdrawn and were observed to engage in more solitary play.

Crozier (1997) argued that most children, including non-shy children, are less fluent when the teacher asks direct questions which require 'yes' or 'no' answers, and questions prefaced with 'how' or 'wh-type' words (who, what, why, when, where). He also observed that a more conversational teaching style – such as "Show and Tell" sessions which depend on the child's contributions and on introducing his/her own views and opinion – makes children more fluent. The reason for this is that these sessions are prearranged, in which each child speaks in his or her turn about his/her object in an expected manner; nevertheless, shy children are still less fluent in these sessions (Evans, 1987).

Seminars are an effective means to enhance teaching and learning in higher education, but only when they are successful in increasing active participation in discussion and argument (Crozier, 2001b). A study was conducted by Crozier and Garbert-Jones (1996) of a sample of university students interviewed about their perceptions of shyness, their present and past experience of it, and the types of social situations that evoked shyness. The seminar was the situation in university that had the greatest possibility for shyness. Some students' descriptions of seminars included;

some of the most horrific social situations you'll ever come across", "I think perhaps that's one of the reasons why university seemed a daunting thing, the fact that you might have to get up and speak in front of a group of people.

Being the focus of attention was the essential concern; and represented the main characteristic of shyness. *"It's a case of having 30-odd pairs of eyes staring at you."* It is the fear of making a presentation and being seen as foolish in front of others, therefore, they remain quiet in the background whilst suffering from anxiety. Often they rehearse possible answers to questions but are inhibited from uttering them, because they believe that their answers would be incorrect.

5.4 Shyness and Academic Achievement

Performance and achievement are emphasized in the educational process since, as mentioned earlier, the level of education determines to a large extent the future goals and the standard of living in general. It is clear from the literature that shyness has unwanted social consequences, but Zimbardo's (1977) observations show that shyness can affect negatively the thought processes and social activities required for effective academic performance. He noted too that some investigators claim that shy students tend to regard themselves as less intelligent and that this negative academic self-concept

could impede their academic work. As they become more anxious and self-conscious, shy people pay less attention to incoming information. Then the agony of shyness impairs memory and even perception as well.

There is evidence to support the generalization that students from preschool to college age who talk less are viewed as less competent and they may be at higher risk of lower academic achievement. Evans (2001) maintained that student participation, fluency, and social interaction are vital for the attainment of learning objectives, and there is a positive correlation between verbal ability and academic achievement. Thus, based on the previous information concerning the characteristics of the verbal behaviour of shy children in the classroom, shy children may be at risk of lower academic achievement.

There is a suggestion that shy students from elementary school age to university perform more poorly than non-shy students on achievement tests. Evans (2001) provided evidence to support this suggestion, through a review of research which comprises a range of studies following a variety of methods. For example, a study by Masten, Morison and Pellegrini (1985) found that the elementary school students who obtained low scores in a standardized achievement test also obtained high scores on the sensitive-isolated dimension (related to shyness) of the Revised Class Play sociometric measure. Similarly, lower scores on an achievement test were associated with low rates of participation in the classroom in a sample of 1388 youngsters (Finn & Cox, 1992). Additionally a study of teachers' perceptions by McCroskey and Daly (1976) found that teachers rated quiet students who sit in the back of the classroom and rarely participate in class discussions as poorer than more verbal students in their reading skills and in their performance in maths, science, social studies and art.

Recently, shyness has been shown to have a similar relationship with the academic achievement of school children in Switzerland. The results show that shyness correlated negatively with scholastic achievement for Swiss girls and boys (Stoeckli & George, 2002).

In high school too there is evidence for differences. In a study by Comadena and Prusank (1988, cited by Evans, 2001) of Communication Apprehension and academic achievement among elementary and secondary school students, lower scores on an achievement test were associated with high communication anxiety. Likewise, among secondary school students, lower school grades were related to being quiet and withdrawn (Swift & Spivack, 1969, cited by Evans, 2001).

College students who were high in Communication Apprehension obtained lower scores on portions of the American College Test and had lower grade point averages than those low in Communication Apprehension (McCroskey & Anderson, 1976). However, Traub (1983) found a positive correlation between the shyness of 187 university students measured by the Stanford Shyness Survey and their academic performance obtained from their 'Grade Point Average'.

Nevertheless, Crozier (1997) concluded that there is little evidence that shy students do less well in education than their non-shy peers. He provided supporting evidence from empirical research, including studies by Jones and Gerig (1994) who tested sixth grade students and did not find any considerable difference between shy and non-shy students. Call, Beer and Beer (1994, cited by Crozier, 1997) found no correlation between shyness and the grade point average scores of students in grades four to six. There are further studies that support Crozier's observation. Hedrick (1972, cited by Lawrence, 1987), for example, found that shy students are no less intelligent, nor do they perform more poorly in achievement tests than non-shy high school

students. This result was supported by Lawrence's study (1987) since it was found that there was no correlation between shyness and academic achievement in a sample of 649 pupils in two comprehensive schools; shy pupils performed just as well academically as non-shy pupils.

At university level there is also some evidence that shy university students do not perform less well academically than non-shy students. In Saudi Arabia Al-Baker (1986) investigated the relationship between shyness and academic achievement in a sample of students in King Saud University. A shyness self-report and shyness scale (prepared by the researcher) were used to determine students' shyness; Al-Baker found no relationship between shyness and the academic achievement of the students.

Gough and Thorne (1986) found that staff members tended to give students in a sample of American university students who gained high scores on shyness low ratings on intellectual competence. In contrast, correlations between self-described shyness and scores on the Scholastic Aptitude Test were close to zero, which indicated that the staff observers may have undervalued the intellectual competence of shy students.

5.5 Shyness and Children's Language Development

Language is a cognitive skill with important components which perform a communicative function in the social and educational context.

Language is one of the main aspects of child development; it is the means of communication with others in terms of the child's development socially and emotionally. Language is also instrumental in developing the child's skills of thinking, knowing and understanding, and attaining realistic concepts. It also assists the child to create new forms of attention, both oral and visually presented material, and helps the child to a better understanding of him or herself and others. In addition, language facilitates the child's memory and imagination, which are essential in the educational

process and academic performance. However, the language development of children can be affected by different factors, which may hinder the child's language ability; shyness is one of the most important factors associated with language difficulties, and there is some evidence that shy children perform less well on tests of verbal fluency and vocabulary (Crozier, 1997).

Talk, or rather the lack of talk, is an important component in a variety of concepts used to describe people who appear awkward, uncomfortable, timid and inhibited. These concepts include shyness, social withdrawal, inhibition, reticence, social anxiety, and communication apprehension. The quality and quantity of talk appear as indicator variables that cross these terms, although there are conceptual distinctions between them (Evans, 1993). The lack of verbal behaviour is a distinguishing feature of shyness and of what may be its most extreme manifestation, 'elective mutism'. It is one of many behavioural dimensions mentioned in the literature such as instrumental coping or physically remaining distant, failure to approach social situations, turning away, and averting gaze (Evans, 2001).

Evans (1993) reported that individual differences between people in the frequency and amount of talk have been documented in both children and adults since the 1930s and 1940s. The "count studies" of language development that she reviewed investigated development in the amount and rate of talking. Marked individual differences were noted in these studies using the quantity of talk within a given time period as an indicator of language development. The terms "shy", "quiet", "unexpressive" were also used to refer to the less talkative participants. Recently, studies of shyness have found numerous indicators that shy children are less fluent. For example, the researchers (e.g., Crozier, Rubin, & Hastings, 2003; Coplan, et al., 1994; Kagan, 1989a; Kagan, Reznick, & Snidman 1987, 1988) have used the percentage of

time each child actually spends speaking as an index of inhibition, as well as the long latencies to talk and infrequent spontaneous comments with an unfamiliar child or adult. They have found that inhibited children take a longer time to make their first remark, make fewer spontaneous comments in a formal assessment situation and spend less time talking to adults and other children during free play. Similarly Asendorpf (1992, 1993b, 1994) observed dyads of children and adults in a laboratory setting and found a comparable result that latency to their first spontaneous utterances, the percentage of speech, and the length of pauses when talking with an unfamiliar child or adult partner were highly correlated with observer, parent and self ratings of shyness.

Young children seem to be aware of the characteristics of a shy individual and refer to quietness as an indication of shyness. This was shown by Younger, Schneider, and Pelley (1993, cited by Evans, 2001) who found that 84% of a sample of 227 children from grades 1, 3, 5, and 7 said that a child is shy because he or she doesn't talk. The relationship between shyness and silence is recognized by even younger children, for example, 4-year olds who respond to questions about which is the shy puppet. They identified the shy puppet as the one who doesn't like to talk to others and doesn't perform at 'Show and Tell' time (Zimbardo & Radl, 1981, cited by Evans, 2001).

However, situations which are novel, unfamiliar, formal or in which one perceives oneself as having a subordinate status or being dissimilar or unrelated, or else in which one feels noticed and the focus of attention or evaluation, elicit shyness, inhibition and communication apprehension which decrease speech (Asendorpf, 1989b). Evans (2001) argued that school is an important place in which many of the aforementioned characteristics are present, and the talk of shy children has been established to differ from that of their peers. Therefore shy children, when arriving at school, speak less than non-shy children in overall school settings – classroom

discussion time, lesson settings, at school recess, and at home time (Asendorpf & Meier, 1993). Hence they remain quiet in school. Teachers can be concerned about shy children's lack of participation in classroom discourse, that they are less fluent in class and make poor progress in school (Evans, 1987, 1993). In contrast, parents' ratings of their shy children's verbal communication skill in the familiar context of the home did not differ from those of the verbal peers (Evans, 1996). This suggests that shy children are more outgoing and talkative outside of school (Asendorpf & Meier, 1993). However, some studies, such as that of Spere (2004), provided evidence that even in a naturalistic home environment, shy children spoke less than non-shy children

Evans (1993) provided a thorough review of research that examined the language development of shy children, and concluded that, on average, shy or reticent children are not as verbally competent as their non-shy peers and perform more poorly on formal language assessments. Her review classifies three general groups of studies: (1) language measures including standardized tests of language performance; (2) psycholinguistic measures of children's discourse performance in natural social situations coded according to various pragmatic schemes, and (3) tests of "hypothetical-reflective performance", where children are asked to describe what they think they would do in a specific social situation.

5.5.1 Standardized Tests of Language Development

In a review of standardized tests, which are one of the principal concerns of the present study, Crozier (2001b) summarized studies of children's performance in these tests and noted several points about this set of studies. A wide range of constructs have been investigated, including affect-extraversion, approach-avoidance, shyness, inhibition, reticence, sociability and social apprehension. The trend is for there to be

statistically significant differences in language tests between the selected groups of shy or reticent children and either their average peers or non-shy children.

Gewirtz (1948, cited by Crozier, 1997) conducted one of the earliest studies to identify this difference. In a test of word-fluency a sample of preschool children with an average age of 5 years old were asked to generate as many words as they could within a predetermined time interval in response to questions such as: asking the child to give words that rhymed with the target word, produce names of children, adults, and things, arrange sentences, and produce two minutes talking on a familiar topic. The children were rated by their teachers using the Fels Child Behaviour Scale which contains a set of personality trait rating scales including shyness and social apprehensiveness. The shyness scale correlated significantly with scores on all seven sections of the word fluency measure (Gewirtz, 1948, cited by Crozier, 1997).

Evans (1993), in her review of more recent studies, concluded that shy children in the age group between three and eleven years old perform more poorly than non-shy children in standardized vocabulary tests including both expressive vocabulary tests and receptive vocabulary tests. In tests of expressive vocabulary the child has to name pictures, for example The Expressive One Word Picture Vocabulary Test or EOWPVT (Brownell, 2000). The Peabody Picture Vocabulary Test or PPVT (Dunn & Dunn, 1981) is an example of a test of receptive vocabulary, where the child hears a word and is asked to point to which of four pictures demonstrates it.

Van Kleeck and Street (1982) administered both receptive and expressive standardized vocabulary tests in a study of formal language test performance and naturalistic speech observation involving a sample of four 3½-year-old American English girls (two identified as talkative and two as reticent). Three language measures were used. No consistent difference was found between the children on a measure of

receptive syntax (Auditory Comprehension of Language Test 1973 version; Carrow, 1999), or spontaneous expressive language (developmental sentence scoring procedure from Developmental Sentence Analysis; Lee, 1974). However on the measure of receptive vocabulary (Peabody Picture Vocabulary Test) the two reticent girls obtained scores of 69% and 64% compared with scores of 87% and 88% for the talkative girls. A similar result was obtained with a larger sample in a study by Vrinotis and Evans (1988, cited by Evans, 1993) of reticent children in grades 2, 4, and 6 who had been identified by their teachers as “quiet and rarely participating in classroom discussions”. Those students obtained significantly lower scores than verbal children who had been identified by their teacher as “verbal and participating readily” on the expressive vocabulary subtest of the WISC-R (Wechsler, 1974), which requires children to express the meaning of target words. Reticent children also obtained lower scores than verbal children on the verbal fluency subscale of the CELF test.

A study by Evans (1996) involved a sample of 128 kindergarten children, divided into quiet and verbal groups on the basis of teacher ratings. The aim of this study was to assess the stability of children’s verbal behaviour across different tasks. Expressive and receptive vocabulary tests were used including: the Peabody Picture Vocabulary Test (PPVT), The Expressive One Word Picture Vocabulary Test (EOWPVT), and the Absurdities Scale of the Stanford-Binet Intelligence Scale-IV (Thorndike, Hagen & Sattler, 1986) which requires verbal expression, general knowledge and reasoning. The last of these tests also provided a break from the other language tests in that children typically smile and laugh when they are shown anomalous pictures and asked to say what is silly about the pictures. Quiet children obtained lower scores than verbal children on the expressive vocabulary test but not on

the receptive test. Reticent children also obtained lower scores than verbal children on a subsidiary scale of the Stanford-Binet Intelligence Scale.

Recently Spere et al. (2004) found differences in both receptive and expressive vocabulary tests in a study of 22 temperamentally shy and 22 non-shy children, who were rated for temperamental shyness by their mothers using the Colorado Childhood Temperament Inventory. Shy children obtained lower scores than non-shy children on the Peabody Picture Vocabulary Test and on the Test of Auditory Analysis Skills.

Crozier and Perkins (2002) tested the performance of shy primary school children and their non-shy peers on the British Picture Vocabulary Scale (BPVS). The scores of shy children were significantly lower than those of their peers. On the other hand Coplan and Armer (2005) did not find any significant relationship between shyness and expressive vocabulary in a sample of 82 preschool children. Children's shyness was rated by their parents at the start of the preschool year and their vocabulary was measured by the Expressive One-Word Picture Vocabulary Test.

Crozier and Hostettler (2003) investigated differences in the performance of shy and less shy children on a test of vocabulary under different conditions of testing. The study sample comprised 240 year-5 pupils (122 male, 118 female) from 24 primary schools. The Crichton Vocabulary Scale 1988 Revision (Raven, Court, & Raven, 1988) was administered. This standardized test is divided into two parallel sets of 40 increasingly difficult words. Children were asked to explain in their own words the meaning of each word in turn. It was found that shy children tended to have lower scores than the less shy children on this test.

In summary, the trend in these studies, as mentioned earlier, seems to be that although shy children scores were not lower than their age norms, they obtained a vocabulary score significantly lower than non-shy children. Non-shy children performed

better than shy children, but these differences are not found on all tests, and the examination of the pattern of differences suggests that shy or reticent children tend to perform more poorly on tests of expressive language and the differences are less marked in receptive language (Crozier, 2001b).

5.5.2 Systematic Measures of Language Development in School Sitings

Shyness and its related concepts such as reticence, social withdrawal, social anxiety, inhibition, and communication apprehension have been ignored to some extent by researchers in the area of language development, and there has been little attempt to study the actual communicative behaviours associated with shyness or reticence.

Given that shy children and non-shy children differ in the quantity of talk they contribute to conversation, it is very important to determine the actual differences that exist in their discourse performance and how they interact with others through language.

Van Kleeck and Street (1982) stated that understanding reticence and shyness from a linguistic perspective has important implications for two specific reasons regarding language acquisition. It provides (1) further understanding of individual differences in language development; (2) more understanding of the influence children have on adjustments adults make in talking to them.

Examination of the features of talk performance of shy children and how they socially interact through language with other children in “Show and Tell” sessions is the second concern of the present study.

Evans (1987) contrasted the interactions of less talkative children with those of their peers during classroom “Show and Tell” sessions. Seven reticent children and seven less reticent peers were observed and audiotape-recorded during fifteen sessions across the school year. Reticent children not only spoke less but engaged in less

complex speech than their peers: they spoke more about objects in the “here and now”, spoke about less varied topics, mostly one topic at a turn, uttered fewer words per topic and spoke in shorter utterances than their more talkative peers. Evans also found a difference between the two groups in the types of topics about which they talked, mainly in the frequency with which reticent children described objects while showing them, along with the absence of narratives – whereas their peers frequently gave personal narratives, described objects they had at home and reported on events as well as objects. In addition, Evans found that shy children volunteered less information, and questions were more frequently directed to reticent children than to their peers. Moreover, while less shy children peers responded to teachers’ questions as invitations to contribute further to the topic, shy children did not do so.

Studies show that shy children tend to have shorter speech turns, in terms of mean length of utterances (MLU), and obtain lower scores on measures of verbal fluency including total word output in spontaneous speech (Gewirtz, 1948, cited by Crozier, 1997; Paul & Kellogg, 1997). Asendorpf and Meier (1993) recorded the verbal behaviours of second-grade children throughout the day – the children wore a small portable microcomputer that picked up and recorded their vocalisations. Shy children spoke significantly less in lessons as well as at break time, and this was most evident in the 10-minute period at the beginning of the school day before the start of lessons. Jones and Gerig (1994) interviewed a sample of 30 American sixth-grade students who had been identified as 'silent' on the basis of systematic observations of their behaviour in class. Jones and Gerig interviewed those students about the reasons of their silence. A majority (72%) expressed fears about making mistakes in front of their peers, about being the centre of attention, and about being embarrassed or laughed at.

Most of the research has used play dyads where the child interacts with a familiar or unfamiliar peer or with an adult as the context for social interaction, for example, in studies that are carried out in a laboratory (Evans, 1993).

The Crozier and Perkins (2002) study aimed firstly to examine whether shy children were more reticent in a structured task that requires the child to rearrange a set of jumbled pictures and tell a story that makes sense. Secondly they examined whether any effect of shyness remains when differences in picture vocabulary were controlled. The participants were 40 pupils aged between 6 and 10 years from two primary schools who were rated by the class teachers as 'extremely shy' and 'non-shy'. The teachers also rated the children on a 10-point Likert-type scale for shyness. Shy children obtained lower scores than non-shy children in the British Picture Vocabulary Scale (BPVS); shy children also obtained lower scores in telling stories following the picture arrangement test on the measures of the total number of words spoken, the number of different root words, and the mean length of utterance. There were clear differences between shy children and non-shy children in their narratives, and the stories of shy children were significantly shorter. The vocabulary of non-shy children was more varied as indexed by the number of different word roots. The differences between shy and non-shy children on these measures remained when vocabulary scores were statistically controlled. Crozier and Perkins (2002, p. 242) reported that:

These measures represent only limited aspects of children's language but they have been used in earlier research into shyness and reticence, and they provide a quantitative index of children's responses to the task.

Van Kleeck and Street (1982) in the study described earlier looked at the language produced by four 3½-year old girls and their adult conversational partners.

They found that the two talkative girls had significantly higher mean length of utterance (MLU), significantly more lexical diversity and a greater proportion of complex sentences than the two reticent girls. Similarly, studies in adulthood also show evidence that in conversation with an unfamiliar other, shy adults spend less time talking, show less verbal fluency and expressiveness, make fewer utterances, take fewer and shorter turns and ask fewer questions (Bruch, 2001).

Evans (1993) reviewed several studies and concluded that observations of discourse skills not only form a consistent and body of empirical data, but also suggest that many shy, reticent and socially withdrawn children do not just produce fewer words and shorter utterances when interacting in social situations, but act differently, employing a higher proportion of strategies that emerge earlier in development, such as relying on nonverbal behaviour, making direct requests, talking about the here and now, and making bids for attention.

5.5.3 Structured Observation of Verbal Behaviour during Free Play

Observation of young children's play behaviour has been widely used by researchers to study the variety of children's social behaviours in the laboratory or in naturally occurring social interactions in the home, classroom, and during free play sessions.

Previous research observed shy children during free play and revealed that some forms of nonsocial activity are constructive and adaptive. Rubin (1982a), for example, observed 122 4-year-olds for 20 minutes during free play. Analyses indicated that the frequency of nonsocial-functional and dramatic forms of play correlated negatively with the measures of teachers' ratings of social competence including social maladjustment. The frequency of parallel-constructive play generally correlated positively with the various measures of social competence. Coplan et al. (1994) also examined forms of

solitude in young children – reticence, solitary-passive behaviour, and solitary active behaviour – during free play sessions.

A series of studies by Rubin and his colleagues have been conducted using structured observation to identify age differences in the social and cognitive play of children (Rubin, Watson, & Jambor, 1978); social problem solving abilities of children who interact infrequently with their peers during indoors free play (Rubin, Daniels-Beirness & Bream, 1984); the stability and the concurrent and predictive correlates of different forms of social withdrawal in children during free play sessions (Rubin & Mills, 1988). Rubin, Burgess and Hastings (2002) used observation of children's free play in order to study the stability of different types of behavioural inhibition from toddler to preschool age, and whether inhibited temperament and/or parenting style would predict children's subsequent social and behavioural problems.

Observation of free play was also the method used in a study by Crozier, Rubin and Hastings (2003) to investigate whether two measures of inhibition made when the children were 2 years predicted several distinct measures of reticence at 4 years. The results revealed that inhibition did predict reticence and solitary play. Recently, Coplan et al. (2004) observed the free play of two groups of preschoolers aged 3-5 years of age. Children's behaviour was observed and coded over a three to four week period using an adapted version of Rubin's Play Observation Scale in order to distinguish two types of social withdrawal in early childhood – *conflicted shyness*, that is based on social fear and anxiety despite a desire to interact socially, and *social disinterest*, based on the lack of a strong motivation to engage in social interaction. They found distinct patterns of associations between conflicted shyness and social disinterest and outcome variables.

Examination of the features of talk performance of shy children and how they socially interact through language with other children during free play sessions is the further concern of the present study.

However, there have not been many studies that have observed shy children's verbal behaviour during free play. Evans (1993) reported that although many studies code children's requests during social interaction with playmates, the ways in which utterances are coded are inconsistent from study to study. Rubin, Daniels-Beirness and Bream (1984), in the aforementioned study, found a negative correlation between social withdrawal of children and the number of requests the children made in play groups with same-sex classmates. Van Kleeck and Street (1982) also observed fewer requests to their adult play partners made by the two reticent girls compared with the two verbal girls. In contrast, Rubin and Borwick (1984) did not find any difference in the number of direct or indirect requests made by isolated children to 'non-friend' classmates whom they were paired with in play dyads in preschool and kindergarten. The proportion of requests differed between two groups of children; isolated children made proportionately more requests than their playmates to gain attention, fewer requests to elicit action, and fewer requests to obtain objects. Evans and Ellis (1992, cited by Evans, 2001) reported that in a play group, reticent children made significantly more requests for attention, more simple requests, more non-verbal requests and more requests for information concerning the here-and-now.

In summary, systematic observation of play is a widely used method for collecting data about different aspects of verbal and nonverbal behaviour of children. Individual differences between children are assessed in terms of the frequency, duration, types and amount of talk that have been recorded and coded in a range of ways, and these have been inconsistent from study to study.

In order to measure the verbal behaviour of shy and non-shy children during free play, the present study adopted the observation method which was influenced by Rubin's and his colleagues' research into observation of children's solitary play.

5.6 The Debate about Shy Children's Language Competence and Performance

This chapter has reviewed a number of studies that lend empirical support to the suggestion that tests of verbal fluency, verbal production, expressive, and (in some studies) receptive vocabulary present a picture of differences between shy and reticent children and their non-shy or talkative peers. Evans (1993) concluded that studies clearly show that preschool and kindergarten children who talk less or are less socially outgoing, perform less well on different types of formal language measures assessing verbalization and the comprehension and production of syntax and semantics. These differences mostly appear in expressive language performance, although some of the tasks require only a minimal verbal response such as naming a picture or object or repeating a sentence. Crozier (2001b, p. 67) also suggested that the findings imply that:

The differences between shy and non-shy children cannot simply be a matter of testing in itself; it was what the child has to do that may be important.

Crozier (1997, 2001b) discussed Evans's interpretation of the poorer performance of shy children in terms of their lack of communicative competence and her assumption that tests make valid assessments of shy children's abilities. Evans suggests that they lack competence relative to their peers because their reticence has impeded the development of communicative skills. In turn, it is possible that there is a link between the reticence of children and their home background experiences. The characteristics of the shy person's home may be less encouraging to the development of

vocabulary, for example, there may be less social stimulation, less conversation, or a smaller social network of friends and acquaintances. Evans (1996) assessed background influences on the language development and social discourse skills of children, by conducting interviews with parents of 119 of 128 children. Some of the children were reticent throughout kindergarten; some were reticent during only the first few months, and some of the children were verbal throughout. The analysis of the data indicated that participation in classroom discourse throughout kindergarten was associated with the following background factors: a higher level of maternal and paternal education, child attendance at preschool or kindergarten, more frequent outings with parents, more frequent book reading experiences with the adults, more educationally oriented family hobbies such as television and recreational activities, and more encouragement by parents to participate in interaction when the parents' friends visited.

An association between shyness in children and the tendency of their families to explore new things, express their feelings, and have friends over to visit was demonstrated by Daniels and Plomin (1985). Large numbers of studies including those of Evans and Schmidt (1991) and Whitehurst et al. (1988) have reported the contribution of joint book reading activities to linguistic and discourse skills. Evans (1993, p. 204) suggested that

Environment having reduced emphasis on social and verbal activities and reduced availability of role models and experiences for the development of communication skills may make a direct contribution to poorer communicative competence and shyness behavior.

However, Crozier (2001b) concluded that there is not much direct evidence of this, although there is evidence of a relationship between delayed language development

and shyness, such as a study by Paul and Kellogg (1997) which found that children with a long history of slow expressive language development were rated as shy at age 7 years. A similar result was found by Caulfield, Fischel, DeBaryshe and Whitehurst (1989).

Crozier (1997, 2001b) argued that when interpreting differences in the results of language tests, it is necessary to distinguish between competence and performance. An alternative explanation to the suggestion that shy children lack competence is that shyness is generated by the assessment situation, especially face-to-face testing, which is the most common method used in studies assessing linguistic performance. It is evident that the most common causes of shyness in childhood are encounters with strangers and evaluative situations. Therefore, Crozier argued that it is not clear whether test performance reflects relative differences in competence in expressive and receptive vocabulary, or whether the expressive vocabulary test is more susceptible to the influence of shyness, in that the child is required to speak when responding to the task of the test. Crozier and Hostettler (2003), in the study mentioned earlier, compared children's performance under different conditions, contrasting face-to-face with group-administered and written forms of the test. The children completed vocabulary and mental arithmetic tests in one of three conditions. The conditions differed in terms of individual and group administration, and oral and written responses. The first condition was face-to-face, the tests were administered individually in a quiet room, where the tests were presented orally and the children were asked to answer orally. The second face-to-face condition was also administered individually in a quiet room but children were instructed to make their responses in writing. The third condition was a group setting; every child completed the scale's answer booklet in the classroom. The conditions of test administration influenced the vocabulary test performance of shy

children. They performed significantly more poorly than their peers in the two face-to-face conditions, but not in the group test condition, where the children were asked to write their answer in front of the tester, shy children performed less well than when tested by speaking their response. Crozier and Hostettler (2003, p. 326) suggested that:

Perhaps this condition elicits social-evaluative concerns because children are conscious that the presentation of their work as well as the correctness of their answer is under scrutiny.

However, Spere (2004) conducted a study in order to examine whether the language differences between shy and not shy children are a product of performance anxiety that shy children are likely to experience in a formal testing situation. A battery of expressive and receptive vocabulary tests were administered to 20 shy and 20 non-shy kindergarten children at school by the examiner and at home by parents. The results revealed that even in the home environment, shy children obtained lower scores than non-shy children. Shy children also obtained lower scores in receptive language than non-shy children at school. Moreover, both groups of children scored higher at school on the expressive language measure suggesting that the language differences are not a result of performance anxiety, which is presumably higher at school.

Crozier (1997, 2001b) suggested several possible mechanisms in which the verbal production of children could be affected by shyness. This might be through attention processes. He argued that:

Shyness produces anxious self-preoccupation which, in parallel with well-established findings in the field of test anxiety, results in attention being self-focused rather than task-focused (Crozier, 1997, p.205).

The tendency to be highly anxious about taking a test is commonly associated with poor performance on tests. Wine (1971) and Sarason (1984) have proposed that the poor performance results because the child's attention is self-focused rather than task focused. Alternatively, because of their fear the embarrassment of giving a wrong answer shy children might set themselves a stringent criterion when they select their responses. In this case shyness would produce hesitation to respond. Children frequently demonstrate this phenomenon in test situations. Crozier (1997, 2001b) concluded that these alternative hypotheses imply that the children's abilities are underestimated by the tests.

Recently, Crozier and Hostettler (2003) focused on the implications of Evans's position that individual differences in measures of language are not to be wholly explained in terms of factors influencing children's test performance. They derived two competing explanations for shy children's performance on tests of vocabulary. (1) '*Vocabulary-competence hypothesis*', proposes that differences on test scores are caused by stable underlying differences in competence and predicts that test performance should be relatively constant across different conditions of testing. In addition, differences between shy and less shy children on assessments of language development, tests of expressive vocabulary should be more evident than on other cognitive tests.

(2) '*Anxiety-performance hypothesis*' is based on extensive research results that shyness is more likely in settings that are considered by the individual as an evaluative situation or as ego-threatening, in novel contexts, and when interacting with strangers, unfamiliar people or authority figures (Asendorpf, 1989b).

Crozier and Hostettler concluded that the second explanation leads to the prediction that children's performance will be influenced by test administration conditions that make salient factors predisposing to shyness. This hypothesis also

assumes that conditions inducing social anxiety not only influence tests of vocabulary, but also would influence performance on other measures of cognitive ability. This interpretation has been explicitly rejected by Evans (1993), who argued that shy children's deficits are also apparent in tests that require no or minimal verbal responses but are not evident in assessments of nonverbal tasks (Crozier, 2001b).

However, while Evans accepts the contribution that anxiety about evaluation or interacting with the examiner during the test can make to the test performance of shy children, she argues that it may not be the whole story. The evidence points to the role of differences in verbal fluency and communicative competence since these differences may not be artificial but are at least partly real, and a true reflection of less well developed verbal knowledge and communication skill. The following points were made by Evans (1993) to support this argument:

First, although an unfamiliar experimenter interviews the children and asks them to respond to hypothetical social scenarios which could stimulate fear of the strangers, it may be less anxiety-inducing than being in the real social situation. Second, although some of the test performances require no verbal response or only single word answers, shy children have been observed to perform less well than non-shy children. Third, there are no differences on non-verbal tasks between shy and non-shy children. Therefore, if anxiety is the only factor, one would have to explain how anxiety is provoked in test and observational situations where verbal problems are to be solved, but not provoked in situations where non-verbal problems are to be solved. Fourth, there are differences between shy and non-shy children in their background experiences, which would be expected to influence their language development and social discourse skills. However, these points that were made by Evans should not be interpreted as a

rejection of the importance of the influence of shyness on the assessment of children or its educational implications (Crozier, 2001b).

The educational implication of shyness in schools can be observed in the formal assessment of children's language. This type of assessment has become the main method of assessment in children's education, even young ones (Crozier, 2001b), and it tends to underestimate children's abilities.

To avoid underestimating children's abilities in school assessments, Crozier (2001b) suggested that effective classroom teaching should be less formal and depends on the teacher's successful evaluation of children's strengths and weaknesses. These should be assessed during teacher-student interaction, where the teacher asks questions, invites participation from the whole class or organizes work groups. Students in this method of teaching volunteer information, ask for help from the teacher or their classmates, and participate in shared activities. Teachers should be aware of temperamental characteristics of children that can influence their assessments of the performance of shy children.

5.7 Shyness, Vocabulary and Verbal Behaviour in Natural School Settings

Despite the debate about the nature of the relationship between shyness in children and their language abilities, shy children have been shown to have lower linguistic skills, including expressive and receptive vocabulary, along with insufficiency in the social use of language when compared with less shy peers (Van Kleeck & Street, 1982; Evans, 1996; Spere et al., 2004). Scarcely any research has examined the implications of differences in vocabulary test scores for children's reticence or for their adjustment. Van Kleeck and Street (1982) reported differences between two shy and two 'talkative' three-year-old girls on a receptive vocabulary test and in measures of

their speech during play with unfamiliar adults but the sample size precludes analysis of any mediating or moderator role of vocabulary on speech. Crozier and Perkins (2002) reported that shy children aged 5 to 9 years obtained lower scores on a test of receptive vocabulary and on measures of speech – mean length of utterance, type-token ratio and number of different root words – while they were describing two cartoon stories. Differences between shy and non-shy children on these three measures remained when vocabulary scores were statistically controlled. Coplan and Armer (2005) reported that expressive vocabulary scores moderated the link between shyness and adjustment difficulties. Their study of a sample of 5-year-olds found that shyness (rated by parents at the beginning of the school year) was associated with teacher ratings made towards the end of the year of children's asocial behaviour, need for teacher attention and perceived competence; shyness was not related to any of these variables among children with higher vocabulary scores. However, there was no difference between shy and non-shy children on the vocabulary test score, one of the few studies to report no difference, and this has to be taken into account when interpreting these findings. Asendorpf (1994) reported findings from a longitudinal study that incorporated a measure of verbal IQ rather than a vocabulary test. Verbal IQ moderated the temporal stability of inhibition from age 4 years to 10 years: children with lower IQ were more likely to remain inhibited than were children of higher IQ. In the present study one of the principal aims is to investigate whether scores on a vocabulary test influence the relation between children's shyness and their reticence in school settings.

5.8 Conclusion

This review of previous research has concentrated on studies examining shyness from a trait perspective. Reticence in social situations, whether assessed in terms of measures of latency, frequency, duration or amount of spontaneous speech, represents the most consistent difference that has been identified between shy children and their less shy peers. These differences have been found in the psychological laboratory where children are observed while interacting with unfamiliar children or adults but there is also evidence of such differences in preschool and school classroom settings which involve more familiar adults and peers.

Shyness is found to be a hidden problem that influences the educational process at different school levels, including university yet is not recognized by educational policy makers. A range of studies has provided evidence of the effect of shyness on the academic achievement of students from preschool to college age and on university students' seminar presentation (Crozier & Garbert-Jones, 1996). Student-teacher interaction could also be affected by students' reticent behaviour (Coplan & Prakash, 2003). This review concentrated on research that used similar measures to those employed in the present study. Evans (1993) and Crozier (2001b) concluded that shy children within the age range of three to 11 years perform more poorly than their peers on standardized language assessments, including tests of vocabulary. Differences are more pronounced on expressive tests relative to receptive tests where the child does not have to articulate a response but has only to point to the correct answer (Evans, 1996) nevertheless differences are evident on both forms of tests (Crozier & Perkins, 2002; Spere et al, 2004). Shyness often takes the form of reticence that can be seen in systematic measures and observation of behaviour in natural settings, including school classroom settings such as "Show and Tell" and free play.

The origin of the linguistic differences has been the subject of speculation. Some argue that the differences are due to the anxious nature of shy children that could influence their performance in different test conditions (Crozier, 1997; Crozier & Hostettler, 2003). Others argue that the differences are due to shy children's lack of competence that results from the limited extent to which they engage in conversations and social interactions (Evans, 1993; Spere, 2004).

The review of previous research showed that little has been done to investigate the extent to which differences in reticence between shy and non-shy children in natural settings persist when variation in vocabulary test scores is statistically controlled.

This study is unique in that it attempts to examine whether the scores on the vocabulary test influence the relationships between children's shyness and their reticence in two preschool settings. The principal aims of this study are to answer the following questions:

- (1) Are there any differences between shy and non-shy children on a test of vocabulary and on speech measures observed during participation in "Show and Tell" and free play sessions?
- (2) Do scores on a vocabulary test influence the relation between children's shyness and their reticence in school settings?

The following hypotheses are framed to answer these questions:

5.9 The Study's Hypotheses

The present study tests four sets of hypotheses concerned with the relationship between shyness in children and their language development.

The first set deals with the differences between shy children and non-shy children in their language development by comparing their performance on a

standardized vocabulary test. Based on previous research showing significant differences between shy and non-shy children on standardized tests of vocabulary (Evans, 1996; Crozier & Perkins, 2002; Spere et al., 2004), it is predicted the same results will appear for the present study:

H1. It is predicted that shy children will obtain lower scores on a standardized test of receptive vocabulary than non-shy children.

The second set of hypotheses deal with the relationship between shyness in children and selective features of their verbal behaviour in two “Show and Tell” sessions, based on previous studies results that the differences in the language development of shy and non-shy children are not restricted to standardized tests but are also reported in naturally occurring social situations in the classroom where shyness could inhibit children’s participation in classroom conversations which involve familiar adults and peers in “Show and Tell” sessions (Evans, 1987) as follows:

H2.1 The total number of words spoken by shy children is less than the number of words spoken by non-shy children.

H2.2 The total number of utterances spoken by shy children is less than the number of utterances spoken by non-shy children.

H2.3 The mean length of utterances spoken by shy children is smaller than the mean length of utterances spoken by non-shy children.

H2.4 Shy children will be asked more questions by the teacher than non-shy children are asked.

H2.5 The number of verbal responses to the teachers’ questions made by shy children is less than the number made by not-shy children.

H2.6 Shy children are more likely to make no response to teachers' questions than are non-shy children.

H2.7 Shy children make more nonverbal responses to the teachers' questions than do non-shy children.

H2.8 The total number of words volunteered by shy children is less than the number of words volunteered by non-shy children.

H2.9 The total number of utterances volunteered by shy children is less than the total number of utterances volunteered by non-shy children.

The third set of hypotheses deal with the relationship between shyness and children's verbal behaviour during free play. Again, differences in the verbal behaviour of shy and non-shy children are not restricted to formal tests and when participating in classroom conversation "Show and Tell" sessions where they are the centre of attention, but the reticence of shy children could also occur during a more unstructured setting where children are free to say and do what they want and they are not the centre of others' attention.

H3.1 Shy children initiate fewer conversations with peers than do non-shy children during free play.

H3.2 Shy children make fewer responses in conversations with peers than do non-shy children during free play.

H3.3 Shy children make fewer initiations and responses to conversations with peers than do non-shy children during free play.

H3.4 Shy children are less likely to talk during free play sessions than are non-shy children.

Although the mediating or moderating role of vocabulary upon the verbal behaviour of children has not been identified in previous studies there are suggestions by Asendorpf (1994) and Coplan and Armer (2005) that inhibited behaviour and poorer adjustment is associated with lower vocabulary. Therefore, the possible role of vocabulary in moderating or mediating the relation between shyness and measures of reticence in natural classroom settings was examined in the fourth set of hypotheses, as well as the possible role of “Show and Tell” in predicting free play.

The following hypothesis will deal with the role of vocabulary in predicting the verbal behaviour of children in “Show and Tell” and free play sessions.

H4.1 Vocabulary scores predict measures of verbal behaviour in “Show and Tell” and free play sessions over and above shyness.

If anxiety is playing a role in shy children’s vocabulary test performance, one would expect that shyness would play a similar role in their performance in “Show and Tell” sessions. In these sessions children are the centre of the teacher’s and other children’s attention (similar to test situation) whereas they play freely in free play. Therefore the possible role of “Show and Tell” sessions in predicting the children’s verbal behaviour during free play over and above vocabulary and shyness was examined in the following hypothesis:

H4.2 Vocabulary scores predict measures of verbal behaviour in free play over and above scores in “Show and Tell” sessions and shyness.

Similar to previous studies (Coplan and Armer, 2005) the researcher sought to examine the role of the interaction between shyness and vocabulary test scores in predicting the verbal behaviour of children in “Show and Tell” and during free play sessions 1 and 2. The following hypothesis was formed:

H4.3 The interaction of vocabulary and shyness scores predicts measures of verbal behaviour in “Show and Tell” and free play sessions.

The possible role of vocabulary in moderating or mediating the relation between shyness and measures of reticence in natural classroom settings was tested in the following hypothesis:

H4.4 Vocabulary scores mediate the relationship between shyness and verbal behaviour of children in “Show and Tell” and free play sessions.

CHAPTER Six

Methodology of the Study

6.1 Introduction

This Chapter is devoted to the methodology of the present study; it includes a discussion of the study population, sampling, the research design, and procedure. It presents the research instruments that have been used by the researcher to collect the required information in order to test the study hypotheses. The Chapter also explains the procedures which have been employed to demonstrate the reliability and validity of the different research instruments that have been used in the present study. The limitations and constraints that faced the researcher in applying these instruments during the field work process are also explained. The Chapter describes the statistical processes for data analysis.

6.2 Study Population

The population of the study, from which the sample was drawn, is children who are attending private preschool centres in Riyadh, the capital city of Saudi Arabia. The reasons for choosing Riyadh as the location for undertaking the field study were as follows.

Riyadh is a large city with a large number of preschool centres including private and public preschools, each with a sufficient number of children to facilitate the implementation of the present study. Since Riyadh is the researcher's home city, the researcher's knowledge of and familiarity with the city facilitated the identification of locations of preschools. In addition, from her experience as supervisor of students during their training period in the Early Childhood Department of King Saud University

the researcher had previous extensive knowledge of the preschools in the city; therefore, it was easy to contact the preschool centres.

Private preschools were chosen for this study rather than public preschools. The researcher made this decision for a number of reasons. First, the researcher was based in Cardiff and returned back to Saudi Arabia in order to collect data so it was important that schools were accessible from her home in Riyadh. Second, as the researcher aimed to assess children's verbal behaviour in familiar settings it was important for the study that the preschools regularly apply "Show and Tell" sessions in the school day.

The researcher's experience was that private preschools centres were more likely to have introduced educational activities new to Saudi Arabia such as "Show and Tell". Her experience of preschools also suggested that private centres would be more likely to accept videotaping and tape-recording of children in their preschools. Thus this was a convenience sample rather than a representative sample of preschools in Saudi Arabia.

It is important to note that the sample of private preschool children is not representative of children aged five to six years old in Saudi Arabia. Typically, it is children from better educated and higher socioeconomic status who attend private preschool centres. The restriction of the sample to private schools is a potential limitation of the study since it could influence the interpretation of the findings and this is discussed in Chapter Eight.

6.3 The Study Sample

The study population, as mentioned earlier was limited to private preschool centres in the capital city of Riyadh. When the present study was conducted, the number of private preschool centres in Riyadh was 170, containing 975 classes and 16905 children (Ministry of Education in Saudi Arabia, 2003).

The study sample consisted of eight private preschool centres; the process of selecting the preschool sample for the present study was undertaken in stages as follows:

6.3.1 First Stage: Preschool Sample

The researcher initially applied stratified random sampling as it is appropriate for a city population which can be divided into subgroups (districts) from each of which a random sample can be chosen (Fink, 1995). Fifteen private preschool centres were selected randomly from all four districts of Riyadh (East, West, North & South), approximately an equal number from each district. A letter was sent to each of them seeking their permission to participate in the study. The aims of the study were explained as well as the tools to be used to gather the information. The letter also included a request to videotape the children in the classrooms and to tape children's talk in "Show and Tell" sessions.

Unfortunately, out of the fifteen randomly selected preschools only six agreed to participate in the study. This was due to the lack of number of preschool centres which apply "Show and Tell" sessions in them and/or the reluctance and sensitivity of some of their teachers to having their conversations with children taped. This forced the researcher to add to the sample two university preschool centres that were not in the original 15 randomly selected schools. They were from the districts that did not have the required number of participating preschools, as shown in Table 6.1 These preschools are affiliated to the university and are mostly attended by children of university staff members, and they usually agree to participate in studies. As such, the final sample consisted of eight preschool centres, three of which were university preschools (one from the random selection and two added later) to ensure that there were two preschools from each district and that all had "Show and Tell" sessions in their classes.

Table 6.1

Preschool Sample Distribution According to the Stages of Selection

Districts	Number of Private Preschools	Randomly Selected Preschools	Preschools Which Agreed to Participate	Added Preschools	Total Sample
1	75	4	2	-	2
2	32	4	1	1	2
3	29	4	2	-	2
4	26	3	1	1	2
Total	162	15	6	2	8

Source of number of preschools in each district is personal communication

Some of these preschools were small with only two final-year (aged 5-6 years) classes and other preschools were middle sized or large with four or six final-year classes respectively, as shown in Table 6.2. All of the final year classes were chosen in the small preschools. In larger preschools two classes were chosen randomly.

Table 6.2

Number of Preschool Classes and Children of the Selected Sample

School	Number of Final Year Classes	Number of Children in Final Year Classes	Sample Of Shy Children	Sample of Non-Shy Children	Total of Shy and Non-Shy Children
1	2	40	6	5	11
2	2	42	4	7	11
3	6	130	7	8	15
4	4	86	7	9	16
5	2	45	9	6	15
6	2	44	7	6	13
7	4	78	6	7	13
8	4	80	6	8	14
Total	26	545	52	56	108

6.3.2 Second Stage: The Sample of Children

The sample size (108 shy and non-shy children) was determined on the basis of:

- (1) What existed in the literature. The samples of previous studies were reviewed by the researcher. The samples ranged between four children (two talkative and two reticent) in Van Kleeck and Street (1982)'s study and 240 pupils, approximately half of whom were shy (118) and half (122) selected as comparison group in a study by Crozier and Hostettler (2003). Therefore, the sample size which resulted from the sample selection procedures is satisfactory.
- (2) Schools and parents' agreement to participate in the present study, in addition to the teachers' nomination of shy and non-shy children in their classrooms. The number of the study sample (108 children) is less than the number initially nominated by teachers, due to the parents' refusal, failure to reply or other particular reasons.
- (3) An additional three criteria were used to select the children for the study sample.

The given criteria were:

1- Nationality

All children chosen were Saudi; this criterion was to enable the sample to be homogeneous regarding the children's characteristics.

2- Children's age

The children's ages ranged from 5 to 6 years old for the entire sample, this age represented the final year in Saudi preschool centres. The selection of the study age was based on several criteria; Firstly, most Saudi parents prefer to enrol their children in the preschool centres for at least one or two years before attending primary school at the age of six years old, in order to prepare them to school stage. So the preschools would then have had a large final year (aged 5-6) of enrolled children. Thus, they would be more likely to contain sufficient numbers of shy children and non-shy children.

Secondly, children in their first year in the preschool (4-5 years old) may be in their first experience away from home and involved with unfamiliar people outside their family context, and the children's shyness may be a reflection of the transition process rather than their stable characteristics. Therefore, it is reasonable to give the children a chance to settle into more stable behaviour by waiting until the children entered their final year in preschool (when they were 5-6 years old). Finally, shyness behaviours can be easily observed when they are in this age group, "*Quietness, in the sense of reluctance to talk spontaneously to an unfamiliar adult ... is evident from age 3 ½ years*" (Crozier, 2003, p. 2).

3-Teachers' Nomination

In every preschool centre the researcher gathered the classroom teachers in a small meeting and discussed with them their understanding of shyness in the light of a definition of shyness based on the checklist used by Crozier and Hostettler (2003) and other explanations from the psychological literature. Teachers were asked to assess the children according to the levels of shyness they displayed in their classrooms, in order to nominate two groups, one group of shy children and the other group of non-shy children.

6.3.2.1 The Shy Children

The shy participants in this study were identified by their teachers. Each teacher of the participating final year classes was asked to nominate children in their class who were shy, taking into account the elements of similarity to the criteria of the study outlined earlier. Following the selection, teachers rated the children in the teacher shyness checklist (TSC) to assess elements related to their shyness (see Appendix 1).

The number of shy participants (nominated by their teachers) is 52, their ages range between 60 - 71 months (with mean age of the group being 63.62 months).

6.3.2.2 The Non-Shy Children

The non-shy children were selected by teachers following the same procedure as the shy group. As in the first group, teachers rated these children on TSC. Participants in this group comprised 56 non-shy children whose ages range between 60 and 71 months (with mean age of group 64.29 months).

In summary, teachers first identified the children as shy and non-shy, and then rated them on the checklist. The two groups were not formed by dividing the sample on the basis of checklist scores.

6.3.3 Third Stage: Parental Permission and Background Information

A letter sent to the parents of the selected children sought their permission to involve their children in the current study (see Appendix 3). The study aims were explained as well as the test that would be used to measure the children's vocabulary. The letter also included a request to tape record and videotape their children in the school context. Although most parents agreed to participate in the study, a number of children were excluded from the actual number of children selected by teachers as a result of their parents' refusal or failure to reply. The final sample comprised 108 children.

The request letter that was sent to the children's parents included a Parents' Shyness Checklist (PSC). It was sent to assess children's shyness from the parents' point of view, along with a background questionnaire to be completed by parents (see Appendix 5 & 7).

Two groups of children were chosen according to the above three criteria, from each selected final-year class in each school chosen. The study was, therefore, successful to some extent in matching two groups, on the variables of age, gender, nationality, background and shyness. Nevertheless, some differences existed between

groups in terms of the children's characteristics, due to the nature of the procedure used to select the two groups, where more than one person (teachers) participated in the selection of children. In addition, having three criteria for the sample of children selection for the present study made it difficult to obtain groups with the same characteristics.

6.3.4 Sample Characteristics

The following section compares the two groups in terms of age, gender, and socioeconomic status.

6.3.4.1 Gender

Table 6.3 shows the numbers of Shy and non-shy boys and girls, regarding the children's gender. It is clear that there are differences between the two groups in their gender distribution. There were more girls than boys in the shy group (32 girls and 20 boys) but slightly more boys than girls in the non-shy group (30 and 26, respectively).

Table: 6.3

Gender Distribution of Shy and Non-Shy Groups

Gender	Shy		Non-shy		Total	
	N	%	N	%	N	%
Boys	20	38.5	30	53.6	50	46.3
Girls	32	61.5	26	46.4	58	53.7
Total	52	100	56	100	108	100

6.3.4.2 Age

Table 6.4 displays the age distributions in the shy and non-shy groups. It shows that the range of children's ages is between 5 years (60 months) and 5 years and 11 months (71 months). Table 6.4 also reveals that the two group's ages are close to each other. 76% of the children are between 60 months and 66 months (39% for shy children, 37% for non-shy children). The highest percentage was 20% for the age of 60 months (12% for shy children, 8% for non-shy children). The reason of this high percentage of children in the age group of 5 years may be due to that, the majority of the information collected about children's background took place at the beginning of the school year, where the children's age was five years old. The remaining 24% is scattered between 67 and 71 months.

Table 6.4

The Age Distribution in Shy and Non-Shy Groups

The Age in Months	Shy Children		Non-shy Children		Total Percent	
	N	%	N	%	N	%
60	13	25.0	9	16.1	22	20.4
61	4	7.7	5	8.9	9	8.3
62	6	11.5	4	7.1	10	9.3
63	6	11.5	6	10.7	12	11.1
64	0	0.0	4	7.1	4	3.7
65	8	15.4	5	8.9	13	12.0
66	5	9.6	7	12.5	12	11.1
67	4	7.7	6	10.7	10	9.3
68	2	3.8	3	5.4	5	4.6
69	1	1.9	2	3.6	3	2.8
70	2	3.8	3	5.4	5	4.6
71	1	1.9	2	3.6	3	2.8
Total	52	100	56	100	108	100.0

6.3.4.3 Children's Socioeconomic Status

The children were similar in socioeconomic status because the preschools sampled were private preschools, largely attracting middle and upper class families. The annual levels of the schools' fees checked by the researcher ranged in Saudi Riyal (SR) approximately from 5000 SR to 8000 SR whereas the school fees for all preschools in Riyadh City ranged from non-fee paying, as in the governmental preschools, to 10,000 SR per year in upper class preschools. From details reported in the background questionnaire and presented in Table 6.5 about the monthly family incomes, the annual family incomes were calculated. They ranged from 24,000 SR to more than 200,000 SR. Only 5% of parents had low income (from 24,000 to 60,000 per year) whereas the majority of parents (83%) had higher income (from 132,000 to more than 200,000 per year).

According to the statistical year book of the Ministry of Planning in Saudi Arabia (2000) the annual wages and compensation for Saudi employees by education level ranged from 36,000 to 250,000 SR.

In addition, the educational level of parents in the current study is above the population average as shown in Table 6.6. 85% of fathers and 62% of mothers had a university degree, this included 54% of fathers and 15% of mothers who had postgraduate qualifications. This is because, as mentioned earlier, three out of eight preschools were university preschool centres. Therefore, the socioeconomic status of the sample studied in the present study is limited to middle and upper class and the investigation of the effect of shyness on the children's language development should be restricted to this level of the socioeconomic status. Because of the homogeneity of the socioeconomic status distribution in the sample this variable will not be included in

analysis of factors affecting the relationship between shyness and the language development of children.

Table 6.5

Monthly Family Income of Shy and Non-Shy Children as Percentage of Family Income
Categories of whole Sample

Family Monthly Income	Shy		Non-Shy		Total	
	N	%	N	%	N	%
From 2000 to 5000 SR	2	1.9	3	2.9	5	4.9
From 6000 to 10.000 SR	7	6.8	5	4.9	12	11.7
From 11.000 to 15.000 SR	15	14.6	15	14.6	30	29.1
16.000 and More	24	23.3	32	31.1	56	54.4
Total	48	46.6	55	53.4	103	100

Table 6.6

Distribution of Fathers' and Mothers' Educational Level for Shy and Non-Shy Children

Father and Mother Education Level	Father Education Level						Mother Education Level					
	Shy		Non-Shy		Total		Shy		Non-Shy		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Elementary School and Below	-	-	1	9	1	9	3	2.8	1	9	4	3.8
High School and Below	8	7.5	2	1.9	10	9.3	11	10.4	10	9.4	21	19.8
Diploma	2	1.9	3	2.8	5	4.7	5	4.7	10	9.4	15	14.2
Degree	16	15	17	15.9	33	30.8	25	23.6	25	23.6	50	47.2
Post-graduate	25	23.4	33	30.8	58	54.2	6	5.7	10	9.4	16	15.1
Total	51	47.7	56	52.3	107	100	50	47.2	56	52.8	106	100

6.4 Research Design

Most research in education can be classified as one of three types; descriptive studies which include surveys aimed at describing the characteristics of a population or an educational phenomenon; correlational and causal-comparative research which aims at exploring relationships between two or more variables; experimental design which is concerned with the effect of manipulated variables (Borg & Gall, 1983). The researcher will use a comparative design aimed at identifying the relationship between shyness in children and their language development by comparing contrasting groups of shy and non-shy children, and then comparing their language development by using appropriate methods. This research design is hypotheses testing, because theory and findings already exist in the literature.

To test the research hypotheses the researcher used the following quantitative methods:

- 1- Teachers' nominations and teachers' shyness checklist
- 2- Parents' shyness checklist
- 3- Standardized vocabulary test.
- 4- Systematic measures of children's speech.
- 5- Systematic observation.

6.5 Research Instruments

6.5.1 Introduction

Instruments for data collection were selected and used according to how best to investigate the relationship between shyness in children and their language development. Three tools were employed in this study to assess the children's language development. These tools included:

(1) A standardized receptive vocabulary scale, (2) systematic measures of children's speech in "Show and Tell" sessions, (3) systematic observation of the children's verbal behaviour during free play. In addition to these instruments, teachers' nomination of shy and non-shy children is used to form the shy and non-shy groups along with teachers' and parents' shyness ratings (teachers' and parents' shyness checklist). A questionnaire was also developed to collect information about the children's background. These tools had been previously developed and used by other researchers and were considered to have an acceptable degree of validity and reliability. Details of these tools follow:

6.5.2 Teachers' Nominations of Shy and Non-Shy Children

In order to select the study sample of shy and non-shy children the researcher used teachers' nominations. Classroom teachers were met by the researcher and provided with a definition of shyness based on the nine items from the teachers' shyness checklist which is used in the present study and discussed in the next section. Teachers were asked to identify children in their classes who were shy and non-shy. Fifty-two children (20 boys) were identified as shy and 56 as non-shy (30 boys).

6.5.2.1 Teachers' Ratings: Shyness Checklist

In line with previous research in the literature, the researcher also used a standardized teachers' checklist to ensure that teachers' nominations refer to the same thing when they describe the child as shy. The standardized teachers' checklist used in the present study was obtained from Crozier and Hostettler (2003), where the five items from the shyness subscale of the Teachers' Version of the EAS Temperament Survey (Buss & Plomin, 1984) were selected along with an additional four reticence items that were used in the study of vocabulary test performance reported by Evans (1996). Items were selected from two scales because they could help to overcome the difficulties in comparing the definition of shyness in different studies (Crozier & Hostettler, 2003). Table 6.7 indicates the items obtained from the shyness subscale of teacher ratings and the four items that had been added.

Table 6.7
Items of Teachers' Shyness Checklist and their Source

No.	Items	Source
1	Child tends to be shy.	Shyness subscale of the EAS (teachers' version)
2	Child makes friends easily.	Shyness subscale of the EAS (teachers' version)
3	Child is very sociable.	Shyness subscale of the EAS (teachers' version)
4	Child takes a long time to warm up to strangers.	Shyness subscale of the EAS (teachers' version)
5	Child is very friendly.	Shyness subscale of the EAS (teachers' version)
6	Child volunteers information in class.	Evans reticence scale
7	Child volunteers to answer questions directed to the class	Evans reticence scale
8	Child speaks using short utterances	Evans reticence scale
9	Child asks for help when needed.	Evans reticence scale

The scale comprises nine items. The items 1, 2, 3, 4, 5 are measures of shyness in children (Buss & Plomin, 1984) while the items 6, 7, 8, 9 are measures of reticence. This term in the Evans study (1996) refers to those who do not talk very much in the classroom, and are regarded as shy children.

The teachers' shyness checklist was translated into Arabic as this is the mother tongue of the population investigated in the present study. Then to check the accuracy of the checklist translation, five bilingual people (in Arabic and English) from the Arabic community in Cardiff translated it back into English. The translation was checked by the researcher's supervisor, and necessary modifications were made to maintain the purpose of the items. Translation back into English did not show any divergence between the Arabic version and the original English version.

The checklist items required the respondent to assess children's shyness using a five-point Likert-type scale (Sarantakos, 1998). Response alternatives for each item were: "not characteristic", "somewhat characteristic", "moderately characteristic", "mostly characteristic", "very characteristic", which were given respectively the scores of; 1, 2, 3, 4, 5. In order to be consistent, items 2, 3, and 5 were recoded, i.e. 5= "not characteristic", 4= "somewhat characteristic", 3= "moderately characteristic", 2= "mostly characteristic", and 1= "very characteristic" (see Appendix 1). When scores of the items were added to give the total score of shyness rating for each child, a higher score indicated a higher rate of shyness.

6.5.2.2 Parents' Ratings: Shyness Checklist

To provide the study with an additional source of information about the shyness of the children in the study sample, items from the shyness subscale of the Parents' Version of the EAS Temperament Survey (Buss & Plomin, 1984), were also selected

without any additional items. The parents' checklist comprises the same five items as the teachers' shyness ratings checklist (see Appendix 5).

6.5.2.3 Teachers' and Parents' Shyness Checklist Pilot Study

Draft versions of the translated teachers' ratings shyness checklist (9 items), and a draft of the translated parents' ratings shyness checklist (5 items) were piloted by administering them to a sample of 12 preschool teachers and 12 parents in two preschools (not included in the main study sample) in Riyadh, where the study took place. The pilot sample were asked to assess the simplicity and the clarity of the items' language, and whether they were at ease with the terms used and the types of behaviour they were asked about. Regarding the teachers' and parents comments, some of the wordings in the translated items were adjusted. Some explanations were added to avoid ambiguity. The final version of both teachers' and parents' shyness checklists are presented in appendixes 1 and 5.

6.5.2.4 Validity and Reliability of Shyness Checklists

The scale validity and reliability of the shyness checklists have been reported in the literature (Buss & Plomin; 1984; Boer & Westenberg, 1994; Evans, 1996) in addition, a number of professors (five) in the School of Education at King Saud University in Saudi Arabia, agreed with the appropriateness and the suitability of the checklists to rate children's shyness in Saudi Arabia, and they made sure that the formal Arabic language and grammar of it were suitable and understandable.

The internal consistency coefficient Alpha was used as an indication of the reliability of the checklist. A high reliability value of 0.94 was obtained for the teachers' shyness checklist. An acceptable reliability level was also obtained for the parents' shyness checklist, the Cronbach Alpha reliability coefficient was 0.77. Alpha

reliability coefficient has values from 0 to 1. Litwin (1995) considered a good correlation coefficient or reliability value equals or exceeds 0.70.

Item 8 was excluded from the final teachers' checklist because the Alpha coefficient for the scale was higher if this item were deleted.

6.5.3 Vocabulary Test

To measure the children's vocabulary in this study the researcher used the Arabic version of the Peabody Picture Vocabulary Test Revised (PPVT-R). The Peabody Picture Vocabulary Test Revised (PPVT-R) was developed by Dunn and Dunn (1981) to measure a subject's receptive vocabulary for Standard American English. The scale was based upon an original instrument prepared in 1959 by the same authors, and was used successfully over twenty years. Dunn and Dunn (1981) reported that the scale provides a quick estimate of one major aspect of a person's verbal ability. It contains two parallel forms; each form has 175 test items arranged in order of increasing difficulty. The scale was designed for people aged from 2½ to 40 years old who can see and hear reasonably well, and understand Standard English to some degree.

PPVT-R was chosen for the present research, because it did not require reading or written responses by the participants (young children in this study did not manage reading nor writing skills), and extensive preparation by the researcher was not needed. In addition, the test is individual, quick and involves untimed administration. Another reason that influenced the selection of PPVT-R for the present study was that the test has been widely used by researchers who have investigated children's language development in different countries, including Rubin (1982b, cited by Evans, 1993); Evans (1996); Crozier & Perkins (2002).

6.5.3.1 The Picture Vocabulary Test (PVT): The Arabic Version of the Peabody Picture Vocabulary Test Revised (PPVT-R)

At the beginning of the study the researcher undertook a search for an Arabic version of the Peabody Picture Vocabulary Test in different Arabic university libraries and other information resources. At the same time the researcher started the processes of translation, modification and pilot studies of the British Picture Vocabulary scale (Dunn et al., 1997), which is the British version of the Peabody Picture Vocabulary Test. After an intensive search which took a long time because the Arabic electronic libraries were limited and did not include all studies conducted and/or unpublished in the Arabic world, the researcher found the Arabic version of the Peabody Picture Vocabulary Test which had been developed in the State of Kuwait by the Centre for Child Evaluation and Teaching (Abu-Allam & Hady, 1998). The scale was standardized in order to provide the specialists who are interested in children's language development with an accurate standardized vocabulary test. This is due to the absence of an objective measuring instrument in educational centres in Kuwait and other Gulf States, as all the tests available were the subscales of other major scales such as the Arabic version of the Binet-Simon scale and the Arabic version of the Wechsler scale.

For the present study the researcher decided to use the Arabic version of PPVT-R (Picture Vocabulary Test). Firstly, it was the only Arabic standardized vocabulary test available for the researcher, as mentioned previously; secondly, the scale was developed in Kuwait, which is one of the Gulf States that include the Kingdom of Saudi Arabia. The two countries are similar in certain respects; they use the same language, Arabic and have the same religion, Islam. They are also similar in their culture and society, which supports the use of a measure for children in Kuwait for children in Saudi Arabia.

The Picture Vocabulary Test (PVT), like the Peabody Picture Vocabulary Test, is used to test the receptive vocabulary of individuals who have grown up in a standard formal Arabic language speaking environment. Because PVT measures an important aspect of oral language-receptive vocabulary, it has a practical use for different purposes; in schools, for example, PVT is helpful in measuring the scholastic aptitude of the students, in identifying language impaired children who may need individual attention and in investigating underachieving students when it is used in conjunction with a measure of school achievement. At the preschool ages the PVT has had widespread applications, because of the importance of vocabulary as a measure of child development. Use in research is another important purpose of PVT, because it is not time-consuming to administer and score. Additional purposes of PVT are clinical and vocational uses.

The PVT contains 184 test items preceded by four training items arranged in order of increasing difficulty. Each item has four simple, black and white illustrations arranged in a multiple-choice format. The subject is asked to point to the picture considered to represent the best meaning of a stimulus word presented orally by the examiner. The raw score is the number of correct responses over the critical range of the subject; it is obtained by subtracting the number of errors over the critical range from the number of the ceiling items. To become meaningful, raw scores are converted to standardized scores. PVT was standardized on age reference groups from 4 to 16 years old. This is so that an individual's scores can be compared with a large group of people of the same age upon whom the PVT was standardized (Abu-Allam & Hady, 1998; Dunn & Dunn, 1981).

6.5.3.2 Reliability of Picture Vocabulary Test (PVT)

Reliability is a statistical measure of the consistency of measurement of the research instrument. It is generally expressed as a correlation coefficient between two sets of data (Litwin, 1995). There are several methods for obtaining the reliability of the instruments, such as the split half method, the test-retest method, alternate forms methods and internal consistency methods (Burns, 2000).

Dunn and Dunn (1981) reported sufficient evidence that the reliability of the PPVT-R appears to be satisfactory, and the test is a slightly more reliable measure than the original PPVT.

In the PVT manual book (in Arabic) the internal consistency method was adopted to measure the reliability of the test, where the Cronbach's Alpha Test was used to obtain the reliability coefficient of the test. The Standard Error of Measurement was also calculated to give additional evidence of the test's reliability, as it can be used in the interpretation of the test scores of an individual. The standardization sample involved in the reliability measurements of the test comprised 800 children aged between 4 and 16 years old. They were selected to represent all educational levels (from preschool to high school) from all five educational zones in Kuwait. The reliability coefficient and the Standard Error of Measurement reported in the test manual are presented in Table 6.8 for all the age groups covered by the test (age groups are represented in years and months; for example, 4-6 represents 4 years and 6 months). The data presented in Table 6.8 indicate a high degree of reliability.

Table 6.8
PVT Reliability Coefficient and the Standard Error of
Measurement According to Age

Age	Reliability Coefficient	Standard Error	Age	Reliability Coefficient	Standard Error
4-0	0.78	7.03	9-0	0.95	3.35
4-6	0.85	5.81	10-0	0.97	2.60
5-0	0.80	6.70	11-0	0.96	3.00
5-6	0.84	6.00	12-0	0.97	2.60
6-0	0.89	4.97	13-0	0.97	2.60
6-6	0.89	4.97	14-0	0.97	2.60
7-0	0.93	3.97	15-0	0.96	3.00
8-0	0.94	3.67	16-0	0.96	3.00

(Abu-Allam & Hady, 1998, the Manual Book, p. 64)

6.5.3.3 Validity of Picture Vocabulary Test (PVT)

It is essential for any successful research to employ valid instruments. Validity is defined by Borg (1987) as the degree to which a test or other tool of measurement measures what it claims to measure. Al-Assaf (1996) also maintains that the only way for a test to be valid is when the test measures what it was intended to measure. More recently, Black (2002, p. 75) provides a similar definition, that “*to ensure validity, any instrument must measure what was intended*”. There are various methods that can be used to judge the validity of the instrument, including: content validity, predictive validity, concurrent validity, construct validity, and face validity (Al-Assaf, 1996).

The validity of the PPVT-R was reported in the test manual (Dunn & Dunn 1981). In order to determine test validity, three types of validity were discussed; content validity, construct validity, and criterion related (including concurrent and predictive)

validity. The associated studies have provided a statistical link between the original PPVT and the revised test (PPVT-R), due to the similarity of the structure of the two tests. Some findings of the construct validity of PPVT summarized by Dunn and Dunn (1981) that have been drawn from the literature review are:

- 1- There are high correlations between PPVT and other tests of vocabulary.
- 2- The PPVT correlates moderately well with other measures of scholastic aptitude.
- 3- It correlates to a reasonable degree with measures of school achievement.

The validity of PVT details was explained in the manual book (in Arabic) as follows:

The correlation between the PVT scores and the scores on school achievement through the Arabic language test was adopted as the best available method (there are no other standardized vocabulary tests in Kuwait) to obtain an estimate of the test validity. The children's scores on the Arabic language achievement test at the beginning and the middle of the school year were used to calculate the test validity; this is because the standardization study took place in the first half of the school year.

The correlations between the PVT scores and scores on the Arabic language achievement test at the beginning and the middle of the school year reported in the test manual are presented in Table 6.9 for different ages.

Table 6.9

Correlations between PVT Scores and Scores on the Arabic Language Achievement Test

Age	Beginning of the Year	Middle of the Year
7	0.30	0.26
9	0.33	0.24
11	0.45	0.18
13	0.37	0.27

(Abu-Allam & Hady, 1998, the Manual Book, p. 65)

Although the correlations between the PVT scores and scores on the achievement test (Arabic language achievement test at the beginning and the middle of the school year) shown in the Table 6.9 are statistically significant, they appear low in general, particularly in the middle of the school year.

6.5.4 Systematic Measures of Children's Speech in "Show and Tell" Sessions

Relatively few studies have examined shy children's discourse performance or have studied how they interact with others through language. The majority of research has investigated dyads during play as the context for social interaction, for example, the studies of Van Kleeck and Street (1982), Rubin, Daniels-Beirness, and Bream (1984), and Rubin and Borwick (1984). These studies have paired shy children with unfamiliar playmates, while Evans and Ellis (1992, cited by Evans, 1993), paired reticent children with their preferred classmates (who had been identified as more verbal).

Evans (1987) measured shy children's speech when they were talking in front of a group of children and a teacher in a "Show and Tell" session. In this activity children were observed and audio taped while they were sitting in a semicircle and the teacher asked the children in turn to tell their classmates about objects, events and sometimes about news. At the same time the target child would be asked questions by the teacher. Notes about nonverbal behaviours of the speaking children which were taken all through the sessions were added to the tape transcriptions by the researcher. The following three categories of variables of data collection were coded: (1) fluency variables, (2) topic variables and (3) response variables (Evans, 1987).

For the present study the researcher followed Evans's (1987) method, by using "Show and Tell" sessions to measure the features of children's speech for the following reasons:

“Show and Tell” activity was recently introduced and regularly scheduled in the classroom program of some preschool centres in Saudi Arabia. Children are interested in this activity as it gives them an opportunity to bring their toys to the class, sharing them with their classmates and playing. This encourages them to talk about their objects, which facilitates the researcher’s work. Moreover the questions directed from teachers and children to the target child, have a considerable value in developing children’s conversational and question-asking skills and enhancing the children’s talk (Evans, 1987).

6.5.4.1 “Show and Tell” Sessions in Saudi Preschools

“Show and Tell” sessions are a novel activity which was added to preschools’ daily program, associated with the new developed curriculum for early childhood education which was established in Saudi Arabia in 1994, but it should be noted that not all preschool centres include “Show and Tell” sessions continuously and some preschools do not include it at all. “Show and Tell” sessions are included in all of the preschools participated in the present study. This activity usually takes place during the last circle time at the end of the school day. To facilitate the implementation of this activity, request letters are sent regularly to the parents asking them to help their children to bring to the school their choice of objects, such as their favourite toys, books, collections etc.

According to a daily timetable which was organized by the teacher, the child is allowed to talk about this object or about whatever he or she wants to talk such as his/her drawing work (in case he or she did not bring anything). Questions are directed from the teacher and other children to the target child about his or her object. There is no limit on the time available for each child to talk; the child can talk until he or she has no more to add.

6.5.4.2 Organization and Recording “Show and Tell” Sessions

It was decided to choose “Show and Tell” activity as a tool to investigate the speech characteristics of shy and non-shy children for reasons mentioned earlier. This activity was used to record the talk of the two comparison samples, one of shy children and the other of non-shy children as nominated by their teachers. After gaining access to the schools by submission of the permission letter to the school administration and after the classes and children selection procedure, a short meeting was held between the researcher and the teachers of the selected classes to explain the purpose of the measurement and how to use a covered mini digital recorder for recording children’s talk during “Show and Tell” sessions. Schedules for the target children were organized and a corroborative request letter also was sent to parents asking them to co-operate by helping their children to choose an object that he or she likes to talk about it in “Show and Tell” sessions. Each participant child was recorded twice in two separate “Show and Tell” sessions during autumn and spring terms (the period of the field work). There was no time limit for each session, the teacher asking questions until the child had no more to add. The duration of a child talking per session ranged between 2-7 minutes with an average of 4 minutes. The overall total of the actual recorded time was 1200 minutes for the entire study sample.

6.5.4.3 Measures of Children's Verbal Behaviour in "Show and Tell"

Sessions: Segmentation, Coding and Calculation

All "Show and Tell" sessions were recorded; each child was recorded in two sessions. The dialogues with the target children in the two sessions were transcribed for the purpose of analysis.

In order to examine the hypotheses of the present research, the data of the following variables were calculated and coded from the tape transcriptions.

(1) The total number of words and (2) the total number of utterances (including those in answering the teacher's questions and volunteered speech) spoken by shy children and non-shy children in the two "Show and Tell" sessions. Evans (1987, p. 174) defined volunteered words and utterances as "*Words and utterances not obliged by teacher questions*". The number of words was calculated by using the word count facility provided by "Word Processors for Windows" because at the time that the research was conducted there was no Arabic version of "SALT Program for Windows" which has been commonly used in transcription and analysis of language in English (Miller & Chapman, 1998). However, the criteria for what constitutes a word particularly for young children were obtained from the manual of SALT (Miller & Chapman, 1998) together with the criteria involved in scoring and segmenting utterances of each transcription.

The process of utterances segmentation follows these criteria: (1) the presence of a distinct pause, (2) the independent and dependent clauses in order to verify the "thought completion", as mentioned in the manual of SALT computer program (Miller & Chapman, 1998), (3) a logical break in speech, such as a change in topic (Rubin, 1979, cited by Rubin, Daniels-Beirness, & Bream, 1984).

(3) The total number of words and the mean length of utterances (MLU) (including volunteered and unvolunteered words and utterances) measured in the present study have been widely used in previous studies as an indicator of children's language development (Kemper, et al, 1995). For example a study by Evans (1987) contrasted the number of words and MLU of shy children with those of their peers during "Show and Tell" sessions. MLU was also used by Van Kleeck and Street (1982) in a study investigating the differences in the spontaneous language produced by two reticent and two verbal preschool girls. Furthermore, Crozier and Perkins (2002) included the total number of words and MLU as variables in their study of differences between shy and non shy children's speech in an assessment situation. MLU in the present study was calculated by dividing the total number of words by the total number of utterances spoken by the child in each session.

Further measures are: (4) the number of questions the child was asked by the teachers in the two "Show and Tell" sessions; (5) the number of the verbal responses to the teachers' questions in the two sessions; (6) the number of no responses to the teacher's questions by the two groups of children; (7) the number of nonverbal responses to the teacher's questions; (8) the total number of words volunteered; (9) the total number of utterances volunteered by shy children and non-shy children.

6.5.4.4 Reliability of Segmentation

The reliability for segmentation of utterances was 89%, which was obtained by two judges working independently in the segmentation of two copies of a single child's transcriptions, then coming together at the end to negotiate and resolve any disagreements. The same procedure was repeated with another different two copies, until a satisfactory percentage of agreement was achieved. Twenty percent of all

transcriptions were analysed following this procedure. Coders were not aware of the children's shyness status (Crozier & Perkins, 2002)

6.5.4.5 Limitations and Constraints

Although the researcher found a high degree of co-operation from preschool administrators, teachers and parents, several factors can be perceived as limitations relating to the process of recording "Show and Tell" sessions. Time is one of the most important factors, as the time of the last circle was limited (30 minutes), so no more than two or three children could be recorded per-session.

A further limitation which faced the researcher was the early leaving of the school, before home time, by some children under investigation, which resulted in their missing their "Show and Tell" session and the researcher having to rearrange another schedule for the absent child.

Another limitation which consumed the researcher's time is that some parents did not respond effectively to the request letters that sought the parents' help by encouraging their children to bring objects to school. This resulted in the child frequently attending the school without bringing any object with him or her. Subsequently, the teacher had to ask the child to talk about his/her choice of alternative object such as class activity, school journey, or a toy at home. Moreover, some parents refused to permit recording of their child's voice even though their previous agreement for their child to participate in the study had been obtained. In such cases the researcher had to exclude the child from the original number of children selected by the teachers. The remaining number of children (108) represented the study sample.

An additional limitation which proved to be problematic was the frequent cancellation of some "Show and Tell" sessions by the teachers because of their

engagement in unexpected important class work. In such cases the researcher had to rearrange another schedule for alternative “Show and Tell” sessions.

6.5.5 Observation

In the present study the researcher aimed to generate information about the verbal behaviour of children during free play. She employed structured observation.

6.5.5.1 Structured Observation of Free Play

Structured observation is an appropriate instrument and it provides information when other methods are not effective (Borg & Gall, 1983). This is because the children’s behaviour is measured, the focus for analysis is overt, and the issues of meaning are less salient. Structured observation yields more precise quantitative data than could be obtained by other methods such as self-report (Borg & Gall, 1983).

Researchers using structured observation employ explicitly formulated rules for the observation and recording of behaviour. The rules inform the observers about the behaviour which is to be observed, and the way it should be recorded. Where each child who participates in a study is observed for a predetermined period of time by means of the same rules, these rules are articulated as an observation schedule (Bryman, 2001).

6.5.5.2 Construction of the Structured Observation Schedule

The structured observation schedule consists of a number of clear focused categories with an easy to operate recording system. The behaviours measured do not require any extensive amount of interpretation on the part of the observer (Bryman, 2001). The structured observation schedule categories are based on what the researcher aims to investigate in this study, whether shy children are different from non-shy

children in terms of their verbal behaviour during free play. The following items represent the observation categories:

- Target child does not talk.
- Target child responds to child talk.
- Target child initiates conversation.
- Target child initiates conversation and responds to child talk.
- Target child speaks, type of talk is Unknown.
- Unknown which child is talking.

The coding sequence of the behaviour depends on a simple frequency measure with an interval coding triggered by time (Robson, 1993). Each observation period (four minutes) was divided into twelve intervals, each of twenty seconds in duration. The verbal behaviour was recorded if it occurred at least once during each 20 seconds interval. Each child was observed twice on two different free play occasions in the classroom. In total, each child was observed for eight minutes, yielding 24 coding intervals per child.

The structured schedule is based on Rubin's Play Observation Scale (POS) (Rubin, 2001) arrangement because it suits the objectives of the study and the classroom circumstances.

A copy of the structured play observation schedule is presented in Appendix 9.

6.5.5.3 Recording the Observation Data

There are a number of options in the ways in which observational data can be recorded: video recording, audio recording, verbal description and check sheets (Pellegrini, 1991). In the present study the researcher chose to videotape the verbal behaviour of the children for the following reasons:

Pellegrini (1991) reported that video recordings provide excellent behavioural records to the extent that both visual and audio data can be preserved. As both sources of information are necessary, it should be the chosen method. In the present study where the researcher is gathering information about the verbal behaviour of the children during free play in the classroom, both visual and audio information are important dimensions. A disadvantage is that it is often more time consuming to code videotapes of behaviour than to code it live (Pellegrini 1996).

The researcher had an additional reason to use the video recording method: The information in the recordings could be used in a variety of ways in order to answer the research questions; furthermore the permanence of the record enables the researcher to code and recode children's behaviour to ensure coding accuracy (Pellegrini, 1991; 1996).

In fact, opting to use the video recording technique in the present study is an important decision in that the research data need to be analyzed for several categories. Therefore the frequent viewing of videotapes allows the researcher to use the recordings in a variety of ways instead of repeating the observation processes. Furthermore, there was the limitation of the time available to the researcher, who was based in Cardiff, but the field work was conducted in Saudi Arabia, which made it difficult for the researcher to return to Saudi Arabia in order to repeat any observations that were needed. Rossman and Rallis (2003, p. 195) maintain that:

In the socio-communications genre, observing frequently entails video-taping events and interactions to create a permanent record for subsequent analysis.

Moreover, as was mentioned earlier, the period of time available for the field work was limited, and the researcher did not have enough time to train people to help

her to carry out the observation. Because of the large size of the sample for the present study, the researcher used video recorders as a recording medium. It also had an advantage when checking reliability; the researcher could use video recorders to avoid the presence of other adults in the classrooms, which would be needed if there were live checking of the reliability. Pellegrini (1996, p.166) pointed out that:

Video recording can help economize when a limited supply of observers is available to record behaviour. If the location allows and research design permits, single observers can make videotapes of groups of individuals. The behaviour of individuals can be coded from the videotapes.

According to Pellegrini (1996), video recorders are particularly useful in studying social behaviour and in the study of language especially to establish the context in which language is used. In the literature, use of the video recorder is widespread to record observational studies. For example, Asendorpf (1993b) videotaped children in an observation room to study their inhibition with adult strangers and peer stranger. In a study reported by Crozier, Rubin and Hastings (2003), eight toddlers were videotaped in order to examine whether two measures of inhibition made at 2 years predicted several distinct measures of reticence at 4 years.

6.5.5.4 Pilot Study and Coding of Videotape Observation

Before commencing the observation recording and coding, it was decided to carry out a pilot study to test the instruments and to improve the preliminary observation and procedure. The objective of the pilot study was to examine the accuracy of the observation schedule and to ensure its ability to discriminate between shy children and non-shy children in their verbal behaviour during free play. Martin and Bateson (1986, cited by Pellegrini, 1991) stressed the importance of preliminary

observation as a key to preparing the observation schedule and which helps the researcher to formulate his/her study questions and decide the appropriate measures and recording methods that will be used.

A sample of video recordings was viewed by the researcher and her supervisor and they agreed that it was a good quality video recording. Data from the observation of twenty children were coded into the preliminary table of observation. The results indicated that there are discernible differences between children in their verbal behaviour during free play. Therefore the pilot study indicated that the observation schedule was sensitive enough to reveal individual differences among the children.

6.5.5.5 Reliability

Reliability refers to the stability of measurement over time and across different measures of the same behaviour. Robson (1993) described two types of reliability tests, “observer consistency” and “inter observer agreement”. The researcher used “inter observer agreement” which is defined by Robson (1993, p. 221) as: *“The extent to which two or more observers obtain the same results when measuring the same behaviour”*. Robson (1993) argued that problems occur if the observers and or instruments demonstrate different results at different times.

The reliability of the observation in the current study was considered to be satisfactory. It was obtained as follow:

A trained volunteered worked with the researcher. They coded 30% of the videotape recordings independently. The results demonstrated a high percentage of agreement which was 94%.

6.5.5.6 Validity

Validity relates to the question of whether a measure is measuring what it is supposed to measure (Bryman, 2001). Sarantakos (1998) reports several types of validity including content validity. Litwin (1995, p. 35) defined content validity as:

A subjective measure of how appropriate the items seem to a set of reviewers who have some knowledge of the subject matter.

In order to ensure the content validity of the study observation, a draft of the observation schedule was designed in accordance with research questions and the previous literature along with consultation with the researcher's supervisor. Copies of the observation schedule draft form were presented to three Ph.D. faculty members of King Saud University, in Saudi Arabia, who all agreed on the categories of verbal behaviour.

6.5.5.7 Procedures for Child Observation

Free play is scheduled daily in Saudi preschool centres. Children are allowed to play for between 30 and 60 minutes (depending upon the school) in their chosen area of interest in the classroom. Prior to the day of the observation and videotape recording, the classrooms were visited, and the settings of the observation were ascertained, so that the researcher became familiar with the situation in each individual class and the children would be familiar with the researcher's presence. Pellegrini (1991, p. 101) stated that:

The preliminary observation period should to be used as a time during which the participants are habituating, or getting used to, the presence of the observer. As children and adults get used to the observer's

presence, their behavior will more closely approximate “normal” behavior.

The researcher spent an hour talking to the children and arranging with teachers for the videotape process. A covered digital video camera was used. This was to obscure it from the children’s attention, so their behaviour should not be altered by the presence of the video camera (Pellegrini 1991).

The 108 children in the sample were videotaped twice as mentioned earlier, in two different free play classroom sessions, each video recording lasting for four minutes. The total of time in which the children were videotaped on the two occasions was eight minutes for each child, 864 minutes for all children of the sample.

6.5.5.8 Limitations of the Observation

The main limitation that faced the researcher during the videotaping of the children’s verbal behaviour was that when a child’s play was interrupted by the teacher or a child leaves the class, the researcher had to repeat the recording later. Also, when children’s spontaneous behaviour was altered because children spent some time looking at the researcher and her machine (though the camera was covered) or started asking questions, which resulted in stopping the recording and postponing it until the children were again acting more naturally, following procedures recommended by Pellegrini (1991).

6.5.6 Children’s Background Questionnaire

This short questionnaire is based on a family background questionnaire which was designed by the present researcher to collect information in her study for a master’s degree (Badawood, 1986). For the purpose of the present study the questionnaire was revised, some unnecessary questions were excluded and some modifications were made

(see Appendix 7). The questionnaire collected information on parents' education, occupation and family income.

The items relevant to this study are parents' education and family income. It is difficult to analyse parents' occupation in Saudi Arabia, because there is no clear classification scheme for occupation in Saudi Arabia.

The validity of the questionnaire was checked by two Ph.D. staff members of the School of Education in King Saud University. They both agreed on the suitability of the questions and the response categories to obtain background information of children in Saudi society; they suggested minor changes, which were incorporated.

6.6 Procedure

Gathering data information and testing of the sample in the present study was carried out by the researcher herself. Field study data were collected in three stages as follows:

6.6.1 Stage One: Selection of Preschools

This involved the selection of the school sample and obtaining the agreement from the preschools to participate in the present study as described earlier in this chapter.

6.6.2 Stage Two: Selection of Children

This stage included several consecutive steps. These steps were carried out individually for each preschool:

(a) Preschools were visited by the researcher who presented herself along with a recommendation letter from her department to the schools' administration.

(b) Classrooms and children were selected for the study sample using the method and criteria described earlier in this chapter.

(c) After the teachers identified the children whom they regarded as shy and the children they regarded as non-shy the teachers were asked to rate these children using the teachers' shyness checklist.

(d) The background questionnaire, Parents' Shyness Checklist and a request letter were sent with children to their parents asking permission for their child's participation in the current study. Consenting parents were asked to complete the background questionnaire and the Parents' Shyness Checklist.

6.6.3 Stage Three: Data Collection

All measurements in this stage were also carried out by the researcher herself for each preschool. This stage, including the following procedures, was carried out at appropriate times during the school day.

6.6.3.1 Administering the Picture Vocabulary Test (PVT)

The PVT (the Arabic version of the Peabody Picture Vocabulary test) was administered individually in a quiet room provided by the head teacher. All shy and non-shy children's names were mixed together, so the researcher who undertook the test was not aware of the children's shyness status. The researcher followed the instructions provided in the test manual where the child is asked to point to the picture that was considered the best meaning for the stimulus word presented orally by the researcher. Each session lasted between 6 and 12 minutes. All children who participated, or did not participate, received a toy and sweet prize as a token of the researcher's appreciation for their contribution and cooperation.

6.6.3.2 Recording Children's Speech in "Show and Tell" Sessions

This procedure took place during "Circle Time" at the end of the school day; each child was recorded twice in two separate "Show and Tell" sessions. The sessions were administered and the children's talk was recorded by the teacher using a hidden mini digital recorder. The researcher attended all the "Show and Tell" sessions to observe any nonverbal behaviour of the target children which were later added to the tape transcriptions.

6.6.3.3 Videotaping Children's Verbal Behaviour during Free Play

The observation took place during classroom free play sessions which were scheduled daily in the classrooms. The researcher videotaped the target children during these sessions. Details of observation and videotape recordings were provided earlier in this chapter.

6.7 Statistical Data Analysis

The researcher has used the following statistical methods for data analysis:

6.7.1 Frequency and Percentage Analysis

These simple descriptive techniques were used to describe and analyze the characteristics of the study sample children and their family background data.

6.7.2 ANOVA

The researcher used ANOVA (analysis of variance) to analyse differences between shy and non-shy children in their verbal behaviour. First the descriptive statistics were considered in comparing the mean and standard deviation of each variable for shy and non-shy boys and girls. Then the first hypothesis was tested with vocabulary test scores as dependent variable in a Factorial ANOVA (between subjects),

with shyness and gender as independent variables. To test the second and the third set of hypotheses a mixed design ANOVA (between-within subjects) was applied to data from “Show and Tell” sessions and free plays observation.

6.7.3 Correlational Analysis

Pearson product-moment correlations were computed to examine the relationship between scores obtained from teachers’ shyness checklists, parents’ shyness checklists, the vocabulary test and scores from the “Show and Tell” and free play sessions measures. The inter-correlations between “Show and Tell” measures and free play variables were also tested by using the correlational techniques.

6.7.4 t-Tests

T-tests are appropriate for the comparison of two groups with regard to scores on a numerical variable. The researcher applied this method to identify the differences between shy and non-shy children in some measures from “Show and Tell” sessions 1 and 2.

6.7.5 Multiple Regression Analysis

Multiple regression analysis is a statistical method for predicting which independent variables contribute most to the variance accounted for in the dependent variable. Multiple regression analysis was used in the current study to examine whether, and to what extent, variations in vocabulary contributed to the differences between shy and non-shy children in measures from the “Show and Tell” and free play sessions.

6.7.6 Principal Components Factor Analyses

A principal components factor analysis is a data reduction method and was employed in the present study prior to multiple regression analysis in order to select variables for inclusion in the regression analyses.

6.7.7 Structural Equation Modelling Program AMOS

Finally, in order to view the contribution of shyness scores and vocabulary scores to the prediction of the verbal behaviour of children in the two sessions simultaneously, a structural equation analysis was carried out using the structural equation modelling program AMOS (Arbuckle & Wothke, 1999).

6.8 Summary

The research methodology of the study has been presented in this chapter. The research questions and hypotheses were formulated on the basis of the research aims. The most appropriate approach to designing the study was a comparative one.

The population of the study was described and details of the stages of selecting the schools and children sample were provided. Groups of shy and non-shy children were selected for the study sample and their characteristics were identified including their parents' socioeconomic status, which was found to be in the middle and upper class.

In the current study quantitative methodological approaches were employed. The research instruments employed to generate quantifiable data were mainly through the use of teachers' and parents' shyness checklists, a standardized vocabulary test, the systematic measures of children's talk in "Show and Tell" session and observation of children's verbal behaviour during free play. The reliability and the validity of the instruments were examined to ensure that all of them were appropriate for the subject of

the study. The vocabulary test was administered individually to each child, children's talk in "Show and Tell" sessions was taped, transcribed and coded for the analysis purposes and their verbal behaviour during free play was videotaped and coded according to the structured observation schedule.

Quantitative data were analysed using descriptive statistics and ANOVA. Multiple Regression analysis and a Structural Equation Modeling Program were used to predict the verbal behaviour of children in "Show and Tell" and during free play sessions.

The researcher took into consideration ethical issues while contacting preschools, teachers, parents and children and employed a gentle way when approaching children with, as far as possible, few interruptions of their natural interactions.

As in any other research of a similar nature, the researcher encountered certain limitations and constraints that she had to tackle in order to obtain the data and information required for her study.

In the following chapter, the researcher will analyse the data obtained and present the study findings.

Chapter Seven

Results

7.1 General Introduction

The aim of this chapter is to provide a summary of the data derived from the methods described in Chapter 6 and the results of statistical analysis. Part One presents the results from the teachers' and parents' shyness checklists. Part Two presents the results for shy and non-shy children in three sections; the first section focuses on the results from the vocabulary test while the second and third sections present results from "Show and Tell" sessions and Free Play respectively. Part Three demonstrates the results of the examination of the relationships between measures from both "Show and Tell" and Free Play sessions and children's scores from the vocabulary test, teachers' shyness checklist and parents' shyness checklist. Part Four presents the results of a series of multiple regression analyses that were conducted to test hypotheses about the relative contributions of shyness, vocabulary and the interaction between shyness and vocabulary to predicting children's verbal behaviour in "Show and Tell" and Free Play sessions. Part Five presents the results of application of the structural equation modelling programme AMOS (Arbuckle & Wothke, 1999) to test a model of the mediating effect of vocabulary on the relations between shyness and verbal behaviour in "Show and Tell" and Free Play session 1 and 2.

7.2 Part One: Teachers' and Parents' Shyness Checklist

7.2.1 Introduction

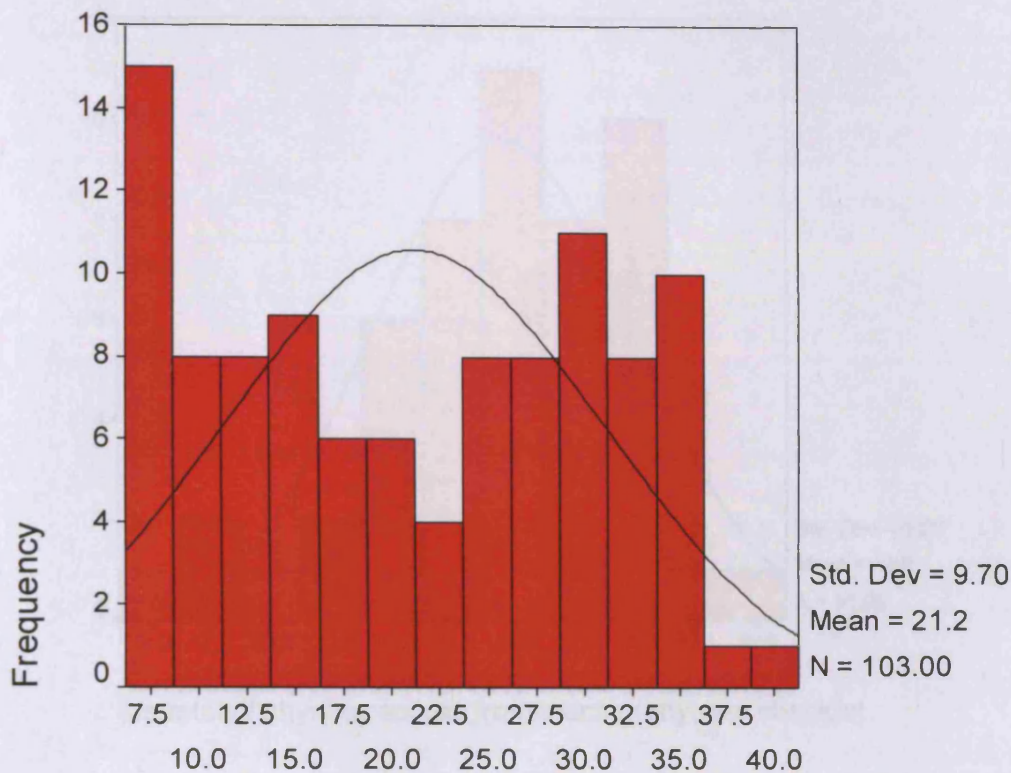
The following sections examine the data resulting from the ratings of children's shyness made by teachers and parents, in order to ascertain whether the allocation of children by teachers to Shy and Not-Shy groups corresponded to children's rated scores as rated on an established shyness checklist. This helped to ascertain whether teachers were using the concept 'shyness' in an equivalent way to previous research. The influence of children's gender on shyness ratings could also be examined. To test this question, Factorial ANOVAs were carried out with scores for teachers' and parents' shyness checklists as dependent variables, and shyness and gender as the independent variables.

7.2.2 Teachers' Shyness Checklist

This section presents the results from the ratings of the children's shyness made by teachers. Teachers' Shyness Checklist scores were distributed as shown in Figure 7.1. In the histogram we can distinguish the separate groups of Shy and Not-Shy children as nominated by teachers. The former and latter are located in the right and left side of the distribution respectively (higher scores indicate higher ratings of shyness).

Figure 7.1

Histogram of the Distribution of Teachers' Shyness Ratings

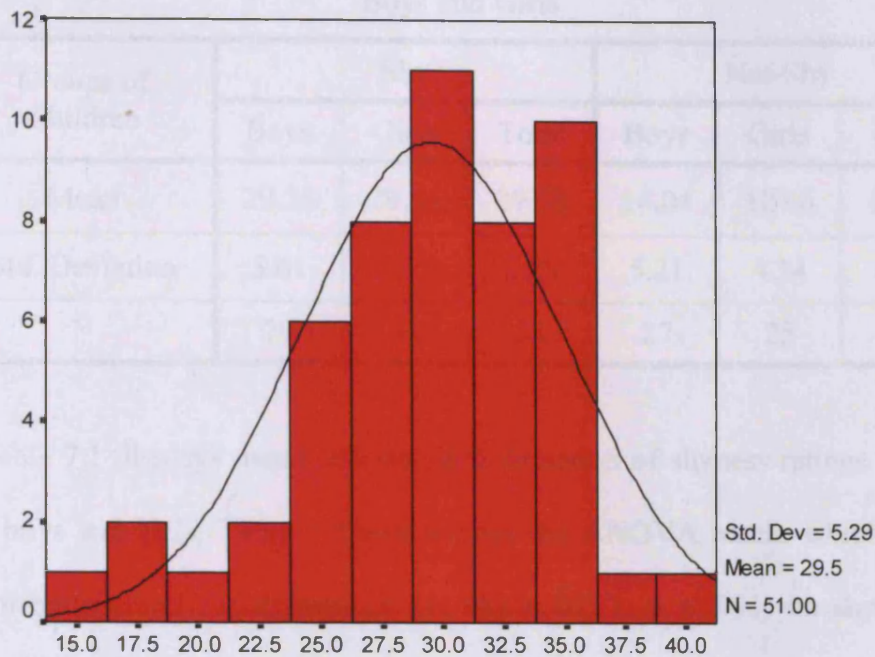


Scores from teacher shyness checklist

The following figures show the distributions of teachers' shyness checklist scores for the children selected as Shy (Figure 7.2) and those selected as Not-Shy (Figure 7.3). In the histograms we can see that while there is some overlap in the distributions of shyness scores of shy and not-shy children, specifically between scores 15 and 25, the distributions of scores are quite distinct, yielding the bimodal distribution of Figure 7.1. Figure 7.2 shows that the range of scores of shy children is narrow and the majority obtained scores between 25 and 35. Nevertheless, distribution shows an approximation to the normal distribution. Figure 7.3 also shows a narrow range of scores for the not-shy children, with the mode of the distributions at the lowest shyness score.

Figure 7.2

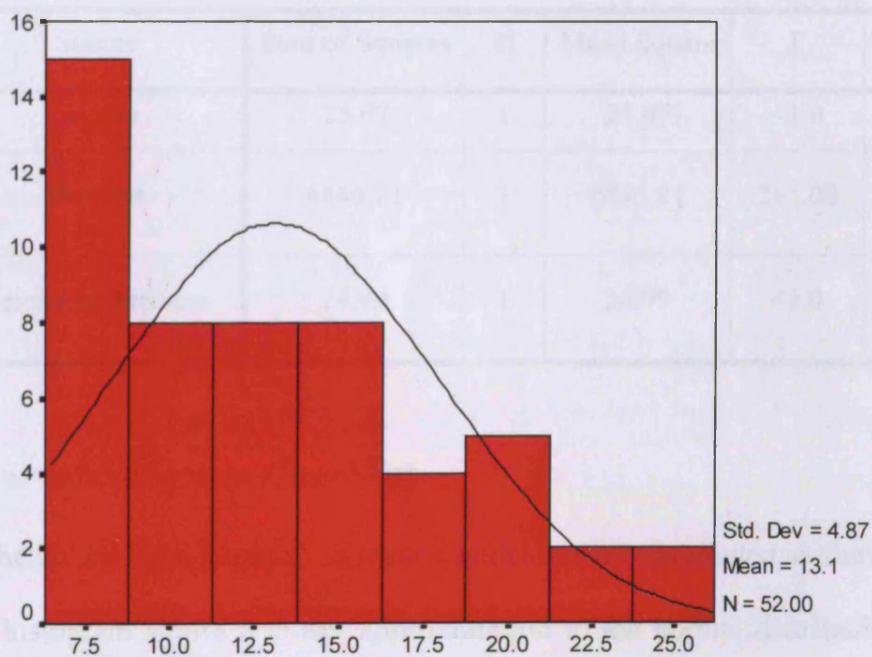
Histogram of the Distribution of Teachers' Shyness Scores for Shy Children



the total of shyness scores from teacher shyness checklist

Figure 7.3

Histogram of the Distribution of Teachers' Shyness Scores for Not-Shy Children



the total of shyness scores from teacher shyness checklist

Table 7.1

**Mean Scores on Teachers' Shyness Checklist for Shy and Not-Shy
Boys and Girls**

Groups of Children	Shy			Not-Shy		
	Boys	Girls	Total	Boys	Girls	Total
Mean	29.55	29.55	29.55	14.04	12.04	13.08
Std. Deviation	5.61	5.17	5.29	5.21	4.34	4.87
N	20	31	51	27	25	52

Table 7.1 displays mean and standard deviation of shyness ratings for Shy and Not-Shy boys and girls. Table 7.2 summarizes the ANOVA result, which indicates a significant main effect for shyness ($F [1, 98] = 265.1, p < .001$) on shyness ratings according to teachers' assessment. There was no significant effect of gender or interaction between shyness and gender.

Table 7.2

ANOVA Summary Table: Teachers' Shyness Checklist Ratings

Source	Sum of Squares	df	Mean Square	F	p
Gender	25.07	1	25.07	<1.0	.327
Shyness	6845.21	1	6845.21	265.08	.000
Gender by Shyness	24.99	1	24.99	<1.0	.328

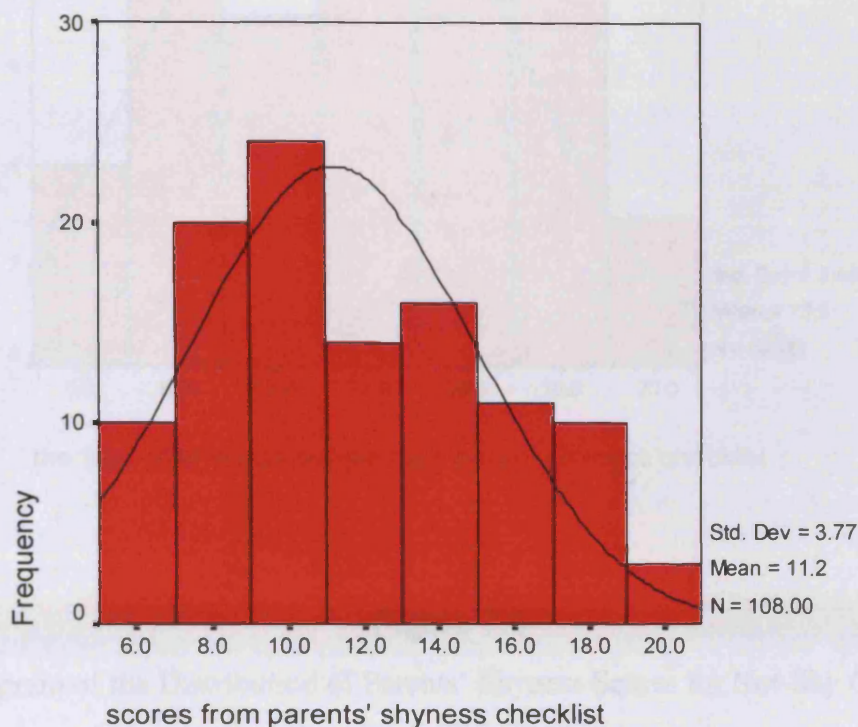
7.2.3 Parents' Shyness Checklist

The scores from Parents' Shyness Checklist were distributed as shown in Figure 7.4. The histogram shows a closer approximation to the normal distribution than that obtained in teachers' ratings and no clear distinction between the two groups (Shy and

Not-Shy children) is evident. In other words, the majority of children gained moderate scores, this result points to differences between parents' and teachers' ratings of children's shyness.

Figure 7.4

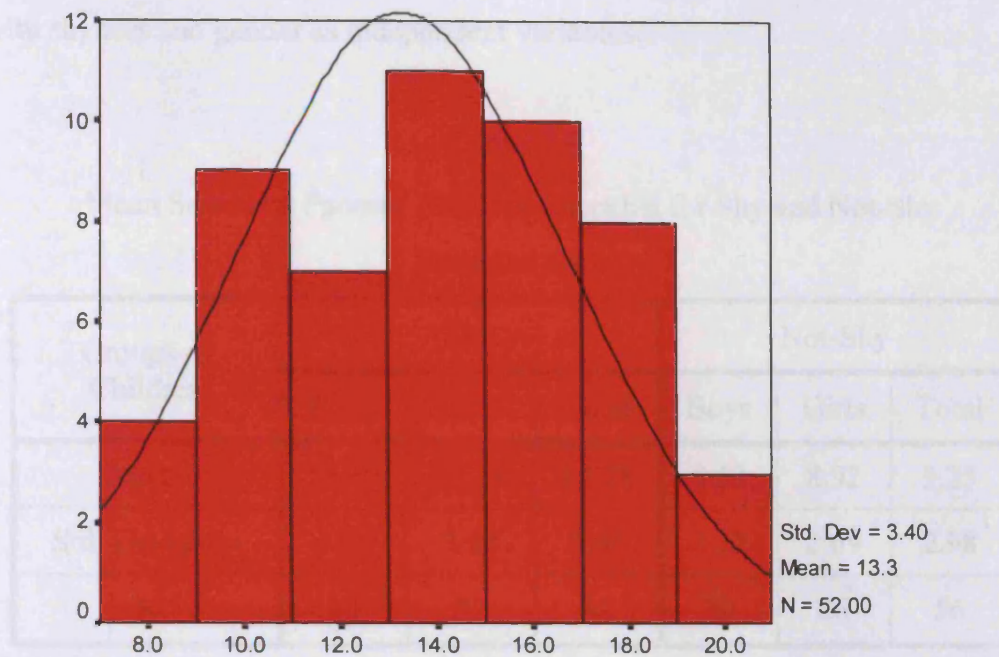
Histogram of the Distribution of Scores from Parents' Shyness Checklist



Similar to the distributions of teachers' shyness scores Figures 7.5 and 7.6 show the distributions of parents' checklist shyness scores for Shy and Not-Shy children separately. There is substantial overlap in the distributions of shyness scores. It is evident that the mean scores are different and that parents see the children nominated by teachers as shy as more shy than the children nominated as not-shy. They also place fewer not-shy children at the extreme low end of the shyness scale.

Figure 7.5

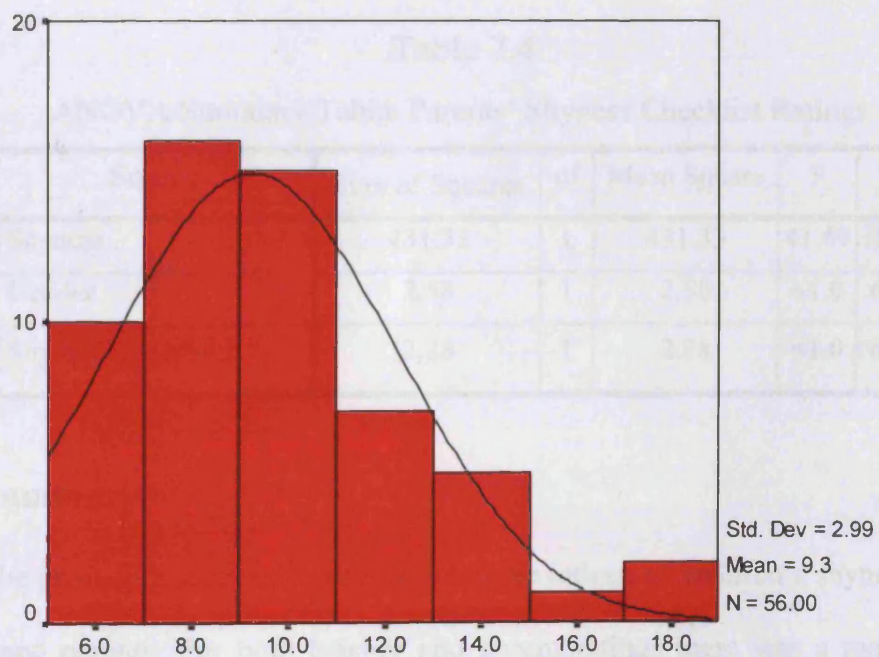
Histogram of the Distribution of Parents' Shyness Scores for Shy Children



the total of shyness scores from parent shyness checklist

Figure 7.6

Histogram of the Distribution of Parents' Shyness Scores for Not-Shy Children



the total of shyness scores from parent shyness checklist

To compare the mean scores derived from the Parents' Shyness Checklist for Shy and Not-Shy children and for boys and girls (Table 7.3) an ANOVA was carried out with shyness and gender as independent variables.

Table 7.3

Mean Scores on Parents' Shyness Checklist for Shy and Not-Shy
Boys and Girls

Groups of Children	Shy			Not-Shy		
	Boys	Girls	Total	Boys	Girls	Total
Mean	13.30	13.28	13.28	9.53	8.92	9.25
Std. Deviation	3.06	3.64	3.40	3.23	2.69	2.98
N	20	32	52	30	26	56

Table 7.4 summarizes the ANOVA result, which indicates a significant main effect for shyness ($F [1, 104] = 41.69, p < .001$). There were no main effects of gender or gender by shyness interaction.

Table 7.4

ANOVA Summary Table: Parents' Shyness Checklist Ratings

Source	Sum of Squares	df	Mean Square	F	p
Shyness	431.33	1	431.33	41.69	.000
Gender	2.58	1	2.58	<1.0	.618
Shyness by Gender	2.28	1	2.28	<1.0	.639

7.2.4 Summary

The preceding sections have examined the ratings of children's shyness made by teachers and parents. For both teacher and parent ratings there was a main effect of shyness group status on shyness ratings. This is not a surprising result in the case of

teachers, although it confirms a similarity between teacher ratings and the construct of shyness as it has been identified in other research undertaken in USA and the United Kingdom. The two distinct groups evident in teacher ratings are less apparent in the parent ratings. Parents of course were not aware of teachers' allocations of children to groups, nevertheless they too rated the children identified as Shy by the teacher as more shy. There were no effects of gender on ratings.

7.3 Part Two: Differences between Shy and Not-Shy children

7.3.1 Introduction

The review of the literature suggested that Shy children, overall, obtain lower scores on tests of language development than do their Not-Shy peers. It was more specifically found that Shy children obtain lower scores than Not-Shy children on vocabulary tests.

It was predicted that in this study Shy children would differ from Not-Shy children in their amount of talking in the "Show and Tell" sessions, would make shorter utterances, would be less likely to answer teachers' questions; and less likely to volunteer answers to teachers' questions (Evans, 1987). Finally it was predicted that shy children would also differ from Not-Shy children in their participation in the conversation with peers during Free Play sessions. They would be less likely to initiate conversations and/or respond to conversation initiated by peers, they would be more likely not to be talking with peers during Free Play sessions (Van Kleeck & Street, 1982; Evans & Ellis, 1992, cited by Evans, 1993).

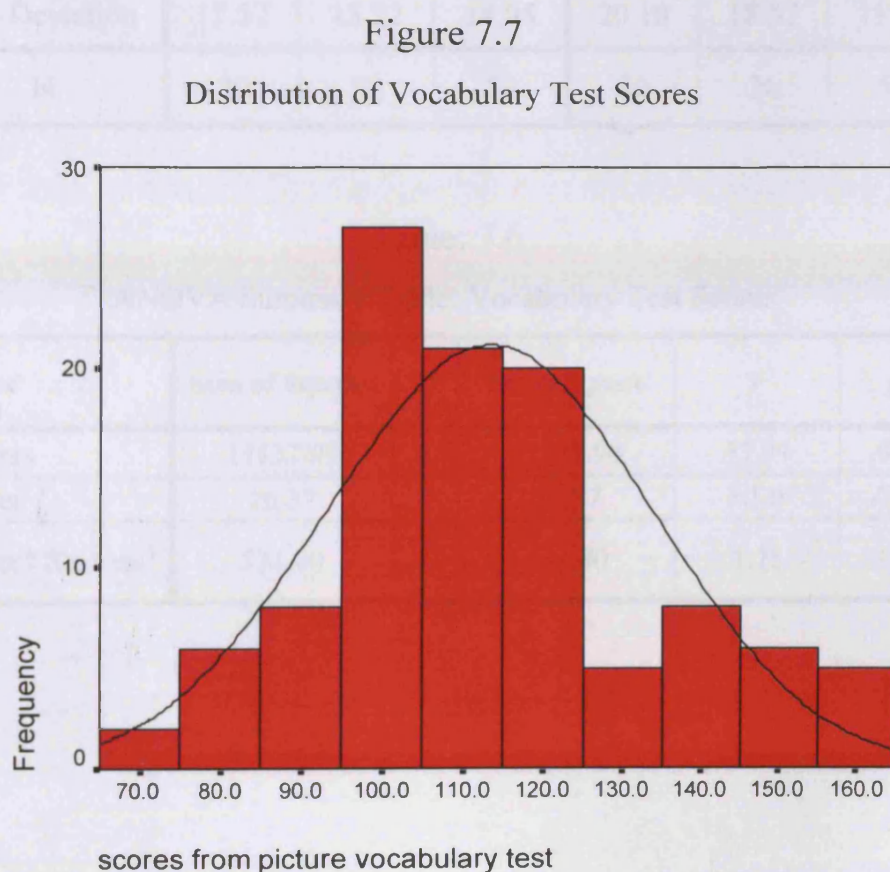
The following sections present the results emerging from tests of hypotheses concerning the effects of shyness, gender and sessions on vocabulary scores, features of

children's talk in two "Show and Tell" sessions, and children's verbal behaviour during two Free Play sessions.

7.3.2 Vocabulary Test Performance

H1 It is predicted that Shy children will obtain lower scores on a standardised test of receptive vocabulary than Not-Shy children.

To test this hypothesis, the vocabulary scores are the dependent variable in a factorial ANOVA (between subjects) design, with shyness and gender as independent variables. The vocabulary test scores were distributed as shown in Figure 7.7 and show an approximation to the normal distribution.



Vocabulary test summary data for Shy and Not-Shy boys and girls are presented in Table 7.5. The results of the ANOVA are displayed in Table 7.6 and show significant

differences between Shy children and Not-Shy children ($F [1, 104] = 37.99, p < .001$).

The hypothesis was supported. Shy children gained lower scores ($M = 102.44$) than Not-Shy children ($M = 123.66$). There is no main effect of gender or gender by shyness interaction effect.

Table 7.5

Means and Standard Deviation of Scores on the Vocabulary Test for Shy and Not-Shy Boys and Girls

Groups of Children	Shy			Not-Shy		
	Boys	Girls	Total	Boys	Girls	Total
Mean	104.60	101.09	102.44	121.10	126.62	123.66
Std. Deviation	17.52	13.22	14.95	20.10	18.57	19.43
N	20	32	52	30	26	56

Table: 7.6

ANOVA Summary Table: Vocabulary Test Scores

Source	Sum of Squares	df	Mean Square	F	p
Shyness	11537.91	1	11537.90	37.99	.000
Gender	26.37	1	26.37	<1.0	.769
Gender* Shyness	531.80	1	531.80	1.75	.189

7.3.3 “Show and Tell” Sessions Results

7.3.3.1 Introduction

In order to examine the impact of shyness on the language use of children in a group setting, an investigation of the differences between Shy and Not-Shy children in selected features of their talk in the two “Show and Tell” sessions was conducted. A set of hypotheses was formulated for this purpose, as described in Chapter 5. The dependent variables in a series of Analyses of Variance were successively the total *Number of Words* spoken by the child, the total *Number of Utterances*, the *Mean Length of Utterances*, the *Number of Questions* the child was asked, the number of *Verbal Responses* to teachers’ questions, the number of *No-Responses* to teachers’ questions, the number of *Nonverbal Responses* to questions, the total number of *Words Volunteered*, and the total *Number of Utterances Volunteered*. Shyness and gender were between-subjects factors, and Sessions (1 and 2) were within-subjects factors.

Data are presented in tables showing mean scores and effects of the independent variables (shyness, gender and sessions) derived from the ANOVAs.

7.3.3.2 Number of Words

This section presents the results of testing hypothesis H2.1 which states that:

H2.1 The total *Number of Words* spoken by Shy children is less than the *Number of Words* spoken by Not-Shy children.

As indicated earlier, the total numbers of words spoken by Shy children and Not-Shy children in the two “Show and Tell” sessions 1 and 2 were calculated. Table 7.7 summarizes the means and standard deviations of the number of words for Shy and Not-Shy children in sessions 1 and 2.

Table 7.7

Number of Words: Means and Standard Deviations for Shy and Not-Shy Boys and Girls in “Show and Tell” Sessions 1 and 2

Sessions		Mean Number of Words (Std Deviation)		
		Shy Children	Not-Shy Children	Total
Session 1	Boys	66.45 (42.12)	201.13 (86.19)	147.26 (97.61)
	Girls	61.06 (41.35)	159.12 (88.66)	105.02 (82.44)
	Total	63.13 (41.32)	181.63 (89.09)	124.57 (91.82)
Session 2	Boys	85.60 (50.94)	198.93 (90.16)	153.60 (94.67)
	Girls	69.06 (52.73)	169.73 (85.37)	114.19 (85.20)
	Total	75.42 (52.18)	185.38 (88.41)	132.44 (91.44)

Table 7.8 summarizes the ANOVA results. The hypothesis was supported. Results indicate a significant effect for shyness ($F [1, 104] = 88.45, p < .001$), with Shy children speaking fewer words than Not-Shy children in the two sessions, respective means of 69.28 and 183.51.

The effect of gender was marginally significant ($F [1, 104] = 3.85, p = .053$), with boys speaking more words than girls in the two sessions, respective means of 150.43 and 109.61. No other effects were significant

Table 7.8

ANOVA Summary Table: Number of Words

Between-Subjects Effects					
Source	Sum of Squares	df	Mean Square	F	p
Shyness	652013.62	1	652013.61	88.45	.000
Gender	28344.91	1	28344.91	3.85	.053
Shyness * Gender	7939.00	1	7939.00	1.08	.302
Within-Subjects Effects					
Session	4132.44	1	4132.44	1.505	.223
Session * Gender	9.06	1	9.06	<1.0	.954
Session * Shyness	1146.68	1	1146.68	<1.0	.520
Session * Gender* Shyness	1876.38	1	1876.38	<1.0	.410

7.3.3.3 Number of Utterances

The hypothesis H2.2 states that:

H2.2 The total *Number of Utterances* spoken by Shy children is less than the *Number of Utterances* spoken by Not-Shy children.

In order to test this hypothesis, the utterances spoken by Shy children and Not-Shy children in the first and second “Show and Tell” sessions were calculated as explained in Chapter 6. The means and standard deviations of the total *Number of Utterances* spoken by Shy children and Not-Shy children in “Show and Tell” 1 and 2 are presented in Table 7.9.

Table 7.9

Number of Utterances: Means and Standard Deviations for Shy and Not-Shy Boys and Girls in “Show and Tell” Sessions 1 and 2

Sessions		Mean Number of Utterances (Std Deviation)		
		Shy Children	Not-Shy Children	Total
Session 1	Boys	27.35 (12.84)	52.13 (17.88)	42.22 (20.09)
	Girls	26.16 (12.21)	42.31 (15.08)	33.40 (15.70)
	Total	26.62 (12.34)	47.57 (17.22)	37.48 (18.32)
Session 2	Boys	31.85 (15.27)	55.30 (20.43)	45.92 (21.73)
	Girls	29.38 (16.73)	45.81 (19.54)	36.74 (19.69)
	Total	30.33 (16.08)	50.89 (20.40)	40.99 (21.07)

Table 7.10 summarizes ANOVA results, which indicate a significant effect for shyness ($F [1, 104] = 55.85, p < .001$) with Shy children making fewer utterances than Not-Shy children in both sessions (respective means, 28.48 and 49.23). The hypothesis was supported. There is also a significant main effect for gender ($F [1, 104] = 4.52, p < 0.05$), boys made more utterances than girls (respective means, 44.07 and 35.07).

Table 7.10

ANOVA Summary Table: *Number of Utterances*

Between-Subjects Effects					
Source	Sum of Squares	df	Mean Square	F	p
Shyness	21338.39	1	21338.39	55.85	.000
Gender	1726.25	1	1726.25	4.52	.036
Shyness * Gender	800.08	1	800.08	2.09	.151
Within-Subjects Effects					
Session	676.08	1	676.08	3.97	.049
Session * Shyness	3.62	1	3.62	<1.0	.884
Session * Gender	2.94	1	2.94	<1.0	.896
Session * Shyness * Gender	8.52	1	8.52	<1.0	.824

There was a significant main effect for sessions ($F [1, 104] = 3.97, p < 0.05$). Children in session 1 spoke fewer utterances ($M = 37.48$) when they talked about their objects than they did in session 2 ($M = 40.99$). None of the interaction effects involving sessions, shyness, and gender was statistically significant.

7.3.3.4 Mean Length of Utterances

H2.3 The *Mean Length of Utterances* spoken by Shy children is smaller than the *Mean Length of Utterances* spoken by Not-Shy children.

To test this hypothesis the researcher calculated the *Mean Length of Utterances* (MLU) spoken by Shy and Not-Shy children in “Show and Tell” sessions 1 and 2 as explained in Chapter 6. This formed the dependent variable in a mixed design ANOVA, with shyness, gender and sessions as factors. The means and standard deviations of the

Mean Length of Utterances spoken by Shy children and Not-Shy children in “Show and Tell” 1 and 2 are presented in Table 7.11.

Table 7.11

Mean Length of Utterances: Means and Standard Deviations for Shy and Not-Shy Boys and Girls in “Show and Tell” Session 1 and 2

Sessions		Mean Number of Utterances (Std Deviation)		
		Shy Children	Not-Shy Children	Total
Session 1	Boys	2.24 (.75)	3.82 (.94)	3.19 (1.17)
	Girls	2.17 (.80)	3.58 (1.09)	2.80 (1.17)
	Total	2.19 (.77)	3.71 (1.01)	2.98 (1.18)
Session 2	Boys	2.54 (.77)	3.55 (.94)	3.15 (.10)
	Girls	2.13 (.76)	3.65 (1.03)	2.81 (1.17)
	Total	2.29 (.78)	3.60 (.97)	2.97 (1.10)

Table 7.12 summarizes the findings from the ANOVA. There is a significant effect for shyness. The hypothesis was supported, with Shy children making shorter utterances than Not-Shy children ($F [1, 104] = 79.83, p < .001$) with respective means, 2.24 and 3.66. The only other significant effect is the three-way interaction between sessions, shyness and gender ($F [1, 104] = 4.33, p < .05$).

Figures 7.8 and 7.9 illustrate the interaction effect between shyness, gender and sessions on MLU for Shy and Not-Shy boys and girls. It seems that in session 1 Not-Shy boys have longer MLU than Not-Shy girls, but they do not differ in session 2. Conversely, Shy boys have longer MLU in the second session than Shy girls, but they

do not differ in the first session. Not-Shy girls are perhaps slower to ‘warm up’, whereas Shy boys become more shy from one session to another.

Table 7.12

ANOVA Summary Table: *Mean Length of Utterances*

Between-Subjects Effects					
Source	Sum of Squares	df	Mean Square	F	p
Shyness	99.96	1	99.96	79.83	.000
Gender	1.22	1	1.22	<1.0	.325
Shyness * Gender	.37	1	.37	<1.0	.586
Within-Subjects Effects					
Session	.01468	1	.01468	<1.0	.838
Session* Shyness	.73	1	.73	2.08	.153
Session* Gender	.00001276	1	.0001276	.000	.995
Session* Shyness* Gender	1.51	1	1.51	4.33	.040

Figure 7.8

Mean Length of Utterances for Not-Shy Children Boys and Girls in “Show and Tell”

Sessions 1 and 2

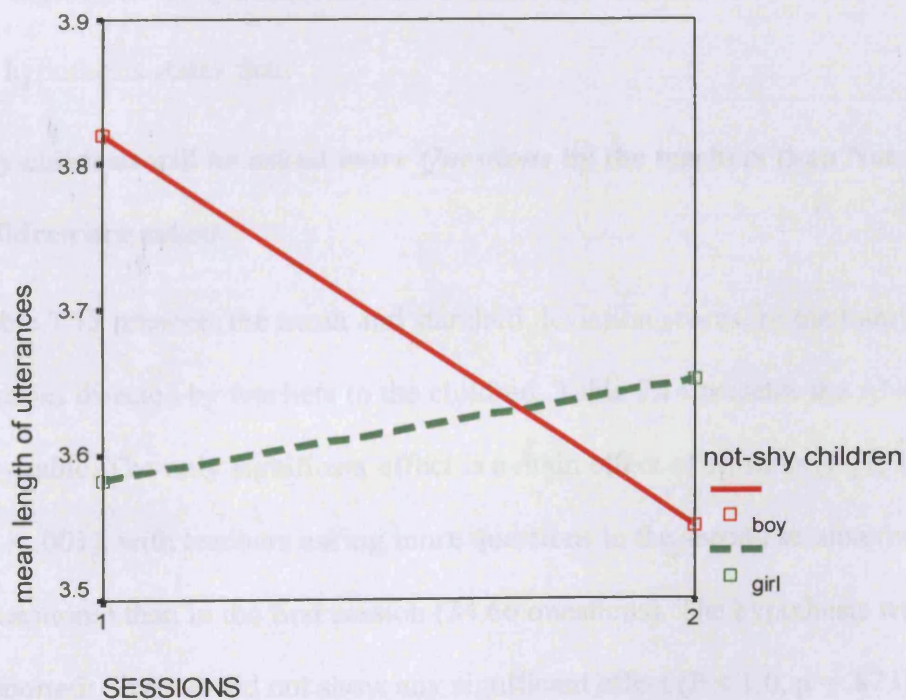
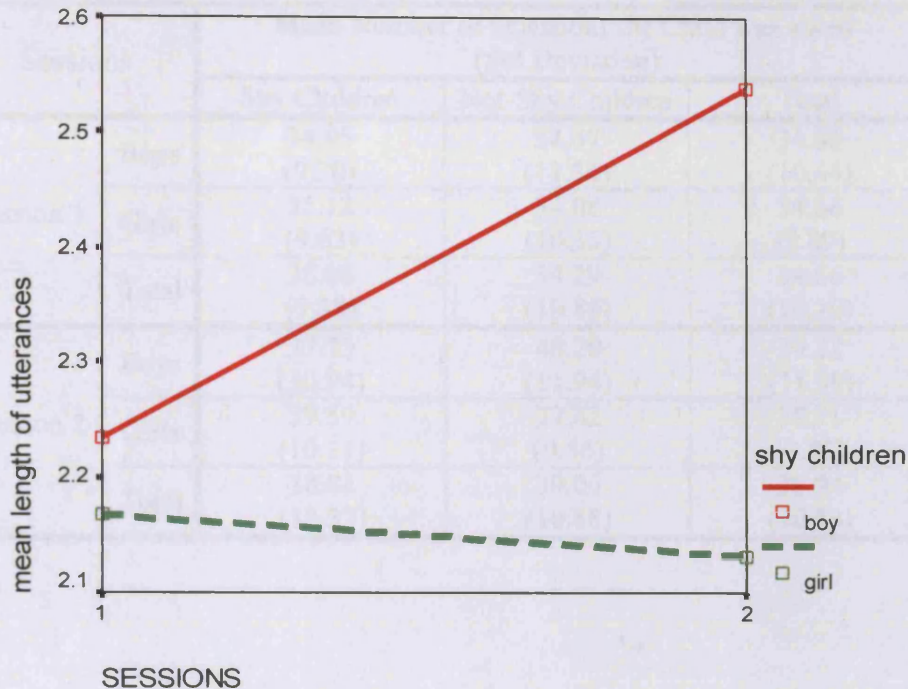


Figure 7.9

*Mean Length of Utterances for Shy Children Boys and Girls in “Show and Tell”
Sessions 1 and 2*



7.3.3.5 Number of Questions the Child was Asked

H2.4 This hypothesis states that:

Shy children will be asked more *Questions* by the teachers than Not-Shy children are asked.

Table 7.13 presents the mean and standard deviation scores for the total *Number of Questions* directed by teachers to the children. Table 7.14 presents the ANOVA summary table. The only significant effect is a main effect of sessions ($F [1, 104] = 11.71, p < .001$), with teachers asking more questions in the second session (mean = 38.94 questions) than in the first session (34.66 questions). The hypothesis was not supported: Shyness did not show any significant effect ($F < 1.0, p = .873$).

Table 7.13

Questions the Child was Asked: Means and Standard Deviations for Shy and Not-Shy Boys and Girls in “Show and Tell” Sessions 1 and 2

Sessions		Mean Number of Questions the Child was asked (Std Deviation)		
		Shy Children	Not-Shy Children	Total
Session 1	Boys	34.95 (9.20)	34.47 (11.34)	34.66 (10.44)
	Girls	35.12 (9.63)	34.08 (10.35)	34.66 (9.89)
	Total	35.06 (9.38)	34.29 (10.80)	34.66 (10.10)
Session 2	Boys	37.75 (10.94)	40.20 (11.94)	39.22 (11.50)
	Girls	39.59 (10.11)	37.62 (9.56)	38.71 (9.83)
	Total	38.88 (10.37)	39.00 (10.88)	38.94 (10.59)

Table 7.14

ANOVA Summary Table: *Questions the Child was Asked*

Between-Subjects Effects					
Source	Sum of Squares	df	Mean Square	F	p
Shyness	3.67	1	3.67	<1.0	.873
Gender	2.98	1	2.98	<1.0	.885
Shyness * Gender	81.45	1	81.45	<1.0	.451
Within-Subjects Effects					
Sessions	893.82	1	893.82	11.706	.001
Sessions * Shyness	13.11	1	13.11	<1.0	.679
Sessions * Gender	.90	1	.90	<1.0	.914
Sessions * Shyness * Gender	48.77	1	48.77	<1.0	.426

7.3.3.6 Number of Verbal Responses to the Teachers' Questions

H2.5 Shy children make fewer *Verbal Responses* to the teachers' questions than do Not-Shy children.

Means and standard deviations scores are presented in Table 7.15, and Table 7.16 summarizes the ANOVA results. The hypothesis was supported, with Shy children making fewer *Verbal Responses* than Not-Shy children ($F [1, 104] = 19.17, p < .001$), with respective means, 24.08 and 61.53. None of the interactions involving shyness was significant. Sessions revealed a significant main effect ($F [1, 104] = 9.21, p < .005$); overall, children gave more verbal answers in the second session (mean 26.43, 29.83 for first and second session respectively).

Table 7.15

Verbal Response: Means and Standard Deviations for Shy and Not-Shy Boys and Girls in "Show and Tell" Sessions 1 and 2

Sessions		Mean Number of Verbal Response (Std Deviation)		
		Shy Children	Not-Shy Children	Total
Session 1	Boys	22.85 (9.41)	30.43 (11.08)	27.40 (11.00)
	Girls	22.56 (9.13)	29.31 (9.06)	25.59 (9.64)
	Total	22.67 (9.15)	29.91 (10.12)	26.43 (10.28)
Session 2	Boys	25.85 (11.16)	36.57 (11.42)	32.28 (12.39)
	Girls	25.28 (12.15)	30.73 (9.75)	27.72 (11.38)
	Total	25.50 (11.67)	33.86 (10.98)	29.83 (12.02)

Table 7.16

ANOVA Summary Table: Verbal Response to Teachers' Questions

Between-Subjects Effects					
Source	Sum of Squares	df	Mean Square	F	p
Shyness	3038.09	1	3038.09	19.17	.000
Gender	199.67	1	199.67	1.26	.264
Shyness * Gender	121.78	1	121.78	<1.0	.383
Within-Subjects Effects					
Sessions	575.75	1	575.75	9.21	.003
Sessions * Shyness	11.03	1	11.03	<1.0	.675
Sessions * Gender	81.40	1	81.40	1.30	.256
Sessions * Shyness * Gender	64.09	1	64.09	1.03	.314

7.3.3.7 Number of No-Responses to Teachers' Questions

H2.6 The number of occasions when Shy children made *No-Response* to the teachers' questions is more than for Not-Shy children.

The summary statistics are presented in Table 7.17, and the outcomes of the ANOVA in Table 7.18 revealed a significant main effect for shyness ($F [1, 104] = 55.66, p < .001$). The hypothesis was supported. Shy children made *No-Response* to teachers' questions on more occasions than did Not-Shy children, with respective means, 7.36 and 2.28. None of the interactions involving shyness was significant. There was a sessions by gender interaction effect ($F [1, 104] = 4.41, p < .05$) with girls more likely to make *No-Response* in the second session (mean 5.98 *No-Response*) than in the first session (mean 4.93 *No-Response*). Conversely, boys were more likely to make *No-Response* in the first session (mean 4.22 *No-Response*) than in the second session (mean 3.52 *No-Response*).

Table 7.17

No-Response to Teachers' Questions: Means and Standard Deviations for Shy and Not-Shy Boys and Girls in "Show and Tell" Sessions 1 and 2

Sessions		Mean Number of No-Responses to Teachers' Questions (Std Deviation)		
		Shy Children	Not-Shy Children	Total
Session 1	Boys	7.40 (5.78)	2.10 (2.78)	4.22 (4.94)
	Girls	7.19 (5.44)	2.15 (2.29)	4.93 (4.98)
	Total	7.27 (5.52)	2.13 (2.54)	4.60 (4.95)
Session 2	Boys	6.10 (4.90)	1.80 (2.19)	3.52 (4.08)
	Girls	8.28 (4.77)	3.15 (3.02)	5.98 (4.79)
	Total	7.44 (4.89)	2.43 (2.67)	4.84 (4.62)

Table 7.18

ANOVA Summary Table: No-Response to Teachers' Questions

Between-Subjects Effects					
Source	Sum of Squares	df	Mean Square	F	p
Shyness	1275.77	1	1275.77	55.66	.000
Gender	37.25	1	37.25	1.625	.205
Shyness * Gender	1.03	1	1.03	<1.0	.833
Within-Subjects Effects					
Sessions	.80	1	.80	<1.0	.779
Sessions * Shyness	2.68	1	2.68	<1.0	.607
Sessions * Gender	44.57	1	44.57	4.41	.038
Sessions * Shyness * Gender	3.91	1	3.91	<1.0	.535

7.3.3.3 Number of Nonverbal Responses to Teachers' Questions

7.2.7 The number of nonverbal responses to teachers' questions

Figure 7.10

Mean Number of *No-Response* to Teachers' Questions by Boys and Girls in "Show and Tell" Sessions 1 and 2

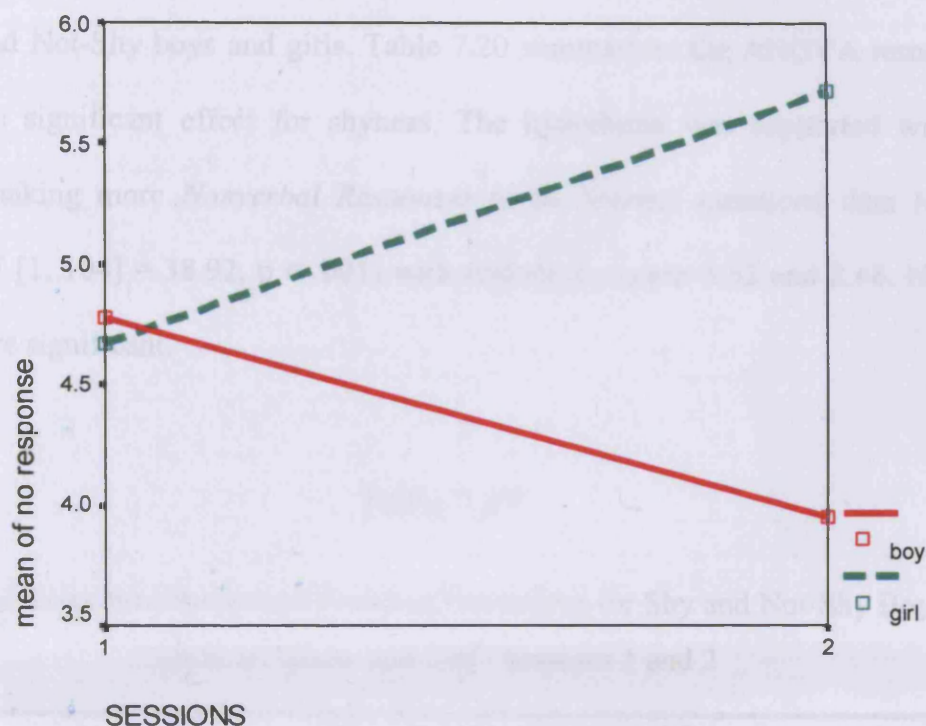


Figure 7.10 shows the interaction between boys' (Continuous line) and girls' (Dotted line) *No-Responses* in the two "Show and Tell" Sessions. Boys and girls were similar in the frequencies of *No-Responses* in session 1, but the frequency decreased for boys in session 2, whereas it increased for girls in session 2.

7.3.3.8 Number of Nonverbal Responses to Teachers’ Questions

H2.7 The number of occasions when children made *Nonverbal Responses* to the teachers’ questions is greater for Shy children than for Not-Shy children.

Table 7.19 shows the means and standard deviations of *Nonverbal Responses* for Shy and Not-Shy boys and girls. Table 7.20 summarizes the ANOVA results, and indicates a significant effect for shyness. The hypothesis was supported with Shy children making more *Nonverbal Responses* to the teacher questions than Not-Shy children ($F [1, 104] = 38.92, p < .001$) with respective means 5.52 and 2.48. No other effects were significant.

Table 7.19

Nonverbal Response: Means and Standard Deviations for Shy and Not-Shy Boys and Girls in “Show and Tell” Sessions 1 and 2

Sessions		Mean Number of Nonverbal Response (Std Deviation)		
		Shy Children	Not-Shy Children	Total
Session 1	Boys	4.65 (2.91)	1.93 (1.95)	3.02 (2.71)
	Girls	5.38 (3.57)	2.62 (2.55)	4.14 (3.42)
	Total	5.10 (3.32)	2.25 (2.25)	3.62 (3.15)
Session 2	Boys	5.80 (4.10)	1.83 (2.20)	3.42 (3.64)
	Girls	6.03 (3.61)	3.73 (3.77)	5.00 (3.83)
	Total	5.94 (3.77)	2.71 (3.15)	4.27 (3.81)

Table 7.20

ANOVA Summary Table: Nonverbal Response

Between-Subjects Effects					
Source	Sum of Squares	df	Mean Square	F	p
Shyness	450.55	1	450.55	38.919	.000
Gender	40.84	1	40.84	3.528	.063
Shyness * Gender	8.61	1	8.61	<1.0	.390
Within-Subjects Effects					
Sessions	26.01	1	26.01	3.207	.076
Sessions * Shyness	2.04	1	2.04	<1.0	.617
Sessions * Gender	1.70	1	1.70	<1.0	.648
Sessions * Shyness * Gender	9.54	1	9.54	1.177	.281

7.3.3.9 Words Volunteered

H2.8 The total *Number of Words Volunteered* by Shy children is less than the *Number of Words Volunteered* by Not-Shy children.

The calculated *Number of Words Volunteered* by Shy and Not-Shy children was the dependent variable in ANOVA. The mean and standard deviation scores are presented in Table 7.21 and the ANOVA outcomes in Table 7.22. The hypothesis was supported. There was a significant effect for shyness ($F [1, 104] = 45.32, p < .001$), with Shy children volunteering fewer words than Not-Shy children, respective means of 8.97 and 63.98. No other effects were statistically significant.

Table 7.21

Words Volunteered: Means and Standard Deviations for Shy and Not-Shy Boys and Girls in “Show and Tell” Sessions 1 and 2

Sessions		Mean Number of Words Volunteered (Std Deviation)		
		Shy Children	Not-Shy Children	Total
Session 1	Boys	6.70 (13.23)	78.47 (78.69)	49.76 (70.67)
	Girls	7.06 (14.71)	47.50 (57.55)	25.19 (44.52)
	Total	6.92 (14.03)	64.09 (70.81)	36.56 (59.11)
Session 2	Boys	10.15 (15.84)	74.67 (70.42)	48.86 (63.65)
	Girls	11.56 (21.21)	51.38 (52.94)	29.41 (43.28)
	Total	11.02 (19.17)	63.86 (63.45)	38.42 (54.30)

Table 7.22

ANOVA Summary Table: Words Volunteered

Between-Subjects Effects					
Source	Sum of Squares	df	Mean Square	F	p
Shyness	153193.14	1	153193.14	45.32	.000
Gender	8995.70	1	8995.70	2.66	.106
Shyness * Gender	10254.04	1	10254.04	3.03	.085
Within-Subjects Effects					
Sessions	210.90	1	210.90	<1.0	.706
Sessions *Shyness	202.11	1	202.11	<1.0	.712
Sessions *Gender	249.25	1	249.25	<1.0	.682
Sessions *Shyness *Gender	143.81	1	143.81	<1.0	.755

7.3.3.10 Utterances Volunteered

H2.9 The total *Number of Utterances Volunteered* by Shy children is less than the total *Number of Utterances Volunteered* by Not-Shy children.

To test this hypothesis the calculated *Number of Utterances Volunteered* by Shy and Not-Shy children in “Show and Tell” sessions 1 and 2 was the dependent variable in ANOVA. Table 7.23 presents the means and standard deviations, and the ANOVA outcomes appear in Table 7.24. There was a significant effect for shyness ($F [1, 104] = 46.66, p < .001$). The hypothesis was supported, with Shy children volunteering fewer *Number of Utterances* than Not-Shy children, respective means of 1.84 and 12.96. No other effects were statistically significant.

Table 7.23

Utterances Volunteered: Means and Standard Deviations for Shy and Not-Shy Boys and Girls in “Show and Tell” Sessions 1 and 2

Sessions		Mean Number of Utterances Volunteered (Std Deviation)		
		Shy Children	Not-Shy Children	Total
Session 1	Boys	1.50 (3.15)	15.63 (14.79)	9.98 (13.50)
	Girls	1.28 (2.47)	9.15 (10.72)	4.81 (8.32)
	Total	1.37 (2.72)	12.63 (13.35)	7.20 (11.27)
Session 2	Boys	2.25 (3.16)	15.50 (15.04)	10.20 (13.44)
	Girls	2.34 (4.43)	10.73 (11.27)	6.10 (9.17)
	Total	2.31 (3.96)	13.29 (13.52)	8.00 (11.48)

Table 7.24

ANOVA Summary Table: Utterances Volunteered

Between-Subjects Effects					
Source	Sum of Squares	df	Mean Square	F	p
Shyness	6222.71	1	6222.71	46.66	.000
Gender	422.63	1	422.63	3.17	.078
Shyness * Gender	404.25	1	404.25	3.03	.085
Within-Subjects Effects					
Sessions	34.64	1	34.64	<1.0	.450
Sessions * Shyness	.45	1	.45	<1.0	.932
Sessions * Gender	13.37	1	13.37	<1.0	.638
Sessions * Shyness * Gender	6.38	1	6.38	<1.0	.745

7.3.3.11 Summary

This section has reported tests of hypotheses about differences in the verbal behaviour of Shy and Not-Shy children in the two “Show and Tell” sessions. There were significant effects for shyness on all talk characteristics of children, namely *Number of Words*, *Number of Utterances*, *Mean Length of Utterances*, *Verbal Responses* to teachers’ questions, number of occasions where *No-Responses* were made to teachers’ questions, *Nonverbal Responses* to teachers’ questions, number of *Words Volunteered* and number of *Utterances Volunteered*. The only exception concerned the numbers of questions children were asked by the teachers, where there was no significant difference between Shy and Not-Shy children. Shy children were asked a similar *Number of Questions* as Not-Shy children, indicating that teachers’ behaviour was not influenced by the shyness of children. Nevertheless, Shy children who were asked by their teachers about the objects they had brought from home to show to their

peers spoke fewer words and utterances, and also used shorter utterances than Not-Shy children.

Moreover, Shy children responded less frequently to teachers' questions than did Not-Shy children, although they did make more *Nonverbal Responses*. Further, the results revealed that Shy children volunteered Words and Utterances less often than Not-Shy children, and obtained a significantly lower mean for the *Number of Words* and *Utterances* they volunteered in the "Show and Tell" sessions.

In general, gender did not influence the variables that were analysed, and the only significant main effect related to the *Number of Utterances*, where boys made more utterances than girls in the two "Show and Tell" sessions.

Some features of children's talk were influenced by the session in which they were measured. These included the *Number of Utterances*, the *Number of Questions* children were asked, and the number of *Verbal Responses* to teachers' questions. Shyness did not influence this difference between the sessions, and in particular there was no overall tendency for Shy children to be more reticent in the first session. This is perhaps because the children had already participated in "Show and Tell" sessions prior to the research so that this was a familiar activity.

Gender did not have an effect on the children's talk from one session to another except for the variable *No Response* to teachers' questions, where the frequency of not responding to the teachers' questions for girls in the second session was higher than that for boys.

The results from the statistical analyses of children's scores on the measures obtained from the two "Show and Tell" sessions have been reported in terms of hypothesis testing and conventional levels of statistical significance. It should be noted

that the differences between shy and Not-Shy children on these measures are substantial.

Shy children obtain mean scores on number of words spoken at least one standard deviation lower than the mean scores of Not-Shy children; they obtain mean length of utterances scores more than one standard deviation shorter than Not-Shy children. These indicate large effect sizes. Indeed, the mean scores of Shy children on number of words are two to three times smaller than the mean scores of Not-Shy children.

Finally, there was a significant three-way interaction between shyness, sessions and gender for the variable *Mean Length of Utterances*. Shy boys have longer MLU in the second session than Shy girls, but boys and girls do not differ in the first session. Conversely, in session 1 Not-Shy boys have longer MLU than Not-Shy girls, but boys and girls do not differ in session 2.

7.3.4 Free Play Observation Results

7.3.4.1 Introduction

In order to examine the impact of shyness on the language of children when playing, an investigation of the differences between Shy and Not-Shy children in their verbal behaviour during Free Play was conducted. The set of hypotheses introduced in Chapter 5 were tested.

The dependent variables in the tests of hypotheses were the measures introduced in Chapter 6. These were derived from observations of the verbal behaviour of Shy and Not-Shy children during Free Play sessions: the frequency of initiating conversations with another child/children (*Conversations Initiated*), frequency of responses to initiations made by peers (*Responses to Initiations*), frequency of both initiations and

responses in conversations with peers (*Both Initiations and Responses*), and frequency of observed intervals during which there was no talk (*No Talk*). These served as the dependent variables in ANOVA, with shyness and gender as between-subjects factors, and Free Play sessions 1 and 2 as the within-subjects factor.

7.3.4.2 Conversations Initiated

This section presents the results from testing hypothesis H3.1 which states that:

H3.1 Shy children initiate fewer conversations with peers than do Not-Shy children during Free Play.

Table 7.25 shows the means and standard deviations of the number of *Conversations Initiated* by Shy and Not-Shy children during Free Play sessions 1 and 2. Table 7.26 summarizes the outcomes of the ANOVA. The hypothesis was supported, in that there was a significant main effect of shyness ($F [1, 104] = 155.51, p < .001$). Shy children were significantly less likely to initiate conversation with peers than Not-Shy children, respective means of 1.12 and 5.07. However, this finding is qualified by a significant interaction term involving session ($F [1, 104] = 3.93, p < .05$), and this is displayed graphically in Figure 7.11. No other effects were significant.

Table 7.25

Conversations Initiated: Means and Standard Deviations for Shy and Not-Shy Boys and Girls during Free Play Sessions 1 and 2

Sessions		Mean Number of Conversations Initiated (Std Deviation)		
		Shy Children	Not-Shy Children	Total
Session 1	Boys	1.50 (2.28)	4.73 (2.20)	3.44 (2.73)
	Girls	1.09 (1.63)	4.92 (1.98)	2.81 (2.62)
	Total	1.25 (1.90)	4.82 (2.08)	3.10 (2.68)
Session 2	Boys	.70 (.98)	5.57 (2.10)	3.62 (2.96)
	Girls	1.16 (1.55)	5.04 (2.47)	2.90 (2.79)
	Total	.98 (1.36)	5.32 (2.27)	3.23 (2.88)

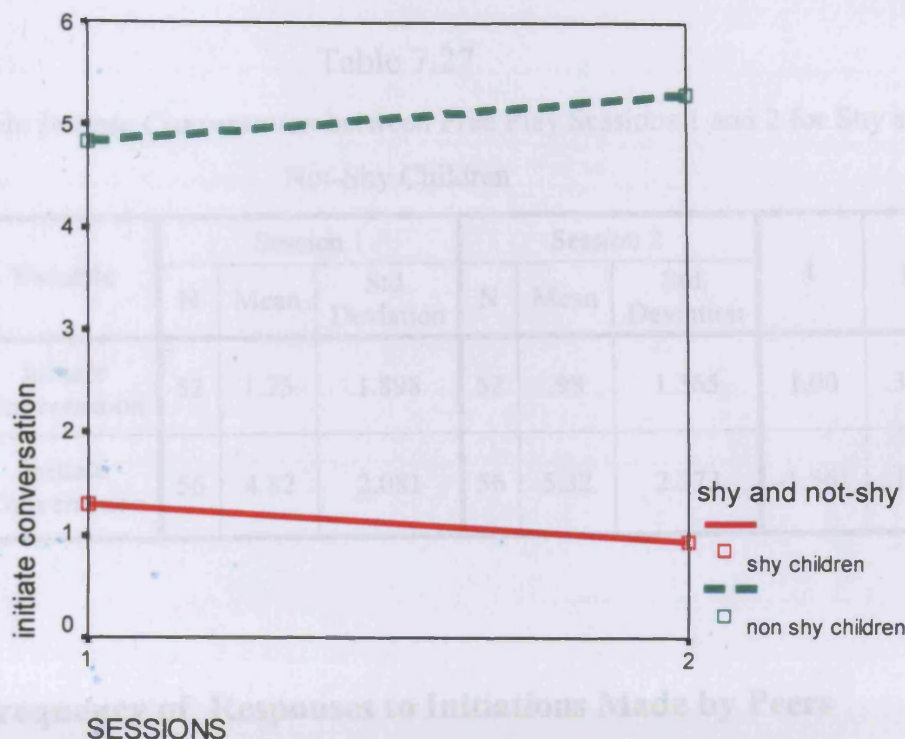
Table 7.26

ANOVA Summary Table: Conversations Initiated

Between-Subjects Effects					
Source	Sum of Squares	df	Mean Square	F	p
Shyness	816.77	1	816.77	155.51	.000
Gender	.27	1	.27	<1.0	.820
Shyness* Gender	.49	1	.49	<1.0	.760
Within-Subjects Effects					
Sessions	.15	1	.15	<1.0	.804
Sessions* Shyness	9.29	1	9.29	3.93	.050
Sessions* Gender	.06826	1	.06826	<1.0	.865
Sessions* Shyness* Gender	8.16	1	8.16	3.45	.066

Figure 7.11

Mean of Conversation Initiated by Shy and Not-Shy Children in Free Play Sessions 1 and 2



Paired-Samples t-tests were conducted to evaluate the impact of the change in sessions on the frequency of observed intervals in which Shy and Not-Shy children *Initiated Conversations* with peers. The results are presented in Table 7.27, showing that for shy children there were no significant differences in the frequency of observed intervals in which they *Initiated Conversation* during Free Play session 1 ($M = 1.25$, $SD = 1.9$), and session 2 ($M = .98$, $SD = 1.37$), $t(52) = 1.0$, $p = .322$. Similar results were found for Not-Shy children, with ($M = 4.82$, $SD = 2.08$), in session 1 and ($M = 5.32$, $SD = 2.27$) in session 2, $t(56) = 1.56$, $p = .124$.

No clear interpretation of the interaction effect is evident. When the ANOVA is repeated with shyness as the single between-subjects variable (omitting gender) and

sessions as the within-subjects variable the interaction is no longer significant ($F [1, 104] = 3.33, p = .07$).

Table 7.27

Differences in *Initiate Conversation* between Free Play Sessions 1 and 2 for Shy and Not-Shy Children

Children	Variable	Session 1			Session 2			t	p
		N	Mean	Std. Deviation	N	Mean	Std. Deviation		
Shy	Initiate Conversation	52	1.25	1.898	52	.98	1.365	1.00	.322
Not-Shy	Initiate Conversation	56	4.82	2.081	56	5.32	2.273	-1.561	.124

7.3.4.3 Frequency of Responses to Initiations Made by Peers

H3.2 Shy children make fewer responses to conversations initiated by peers during Free Play than do Not-Shy children.

The means and the standard deviations of the number of responses made by Shy and Not-Shy boys and girls in the two Free Play sessions are presented in Table 7.28. Table 7.29 summarizes the findings of ANOVA. The hypothesis was not supported, in that there was no significant main effect of shyness ($F < 1.0, p = .823$). Shy and Not-Shy children responded to conversations in a similar way. A significant two-way interaction was observed between sessions and shyness ($F [1, 104] = 13.35, p < .001$). This is displayed in Figure 7.12. Not-Shy children responded to conversations initiated by their peers more frequently than did Shy children in session 1. However, in the second session Not-Shy children showed a decrease in their responses, whereas Shy children showed an increase in their responses. None of the other effects was significant

Table 7.28

Responses to Conversation: Means and Standard Deviations for Shy and Not-Shy Boys and Girls during Free Play Sessions 1 and 2

Sessions		Mean Number of Responses to Conversation (Std Deviation)		
		Shy Children	Not-Shy Children	Total
Session 1	Boys	1.15 (1.39)	1.80 (1.37)	1.54 (1.40)
	Girls	.97 (1.06)	1.73 (1.56)	1.31 (1.35)
	Total	1.04 (1.19)	1.77 (1.45)	1.42 (1.37)
Session 2	Boys	2.00 (1.34)	1.27 (1.08)	1.56 (1.23)
	Girls	1.84 (2.00)	1.35 (.89)	1.62 (1.61)
	Total	1.90 (1.76)	1.30 (.99)	1.59 (1.44)

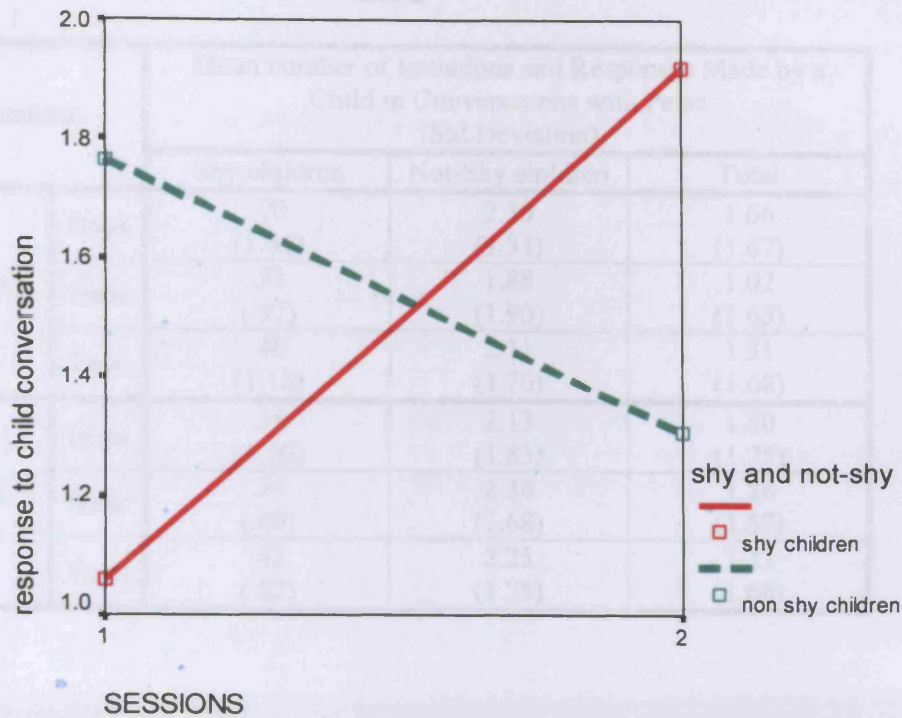
Table 7.29

ANOVA Summary Table: *Responses to Conversations*

Between-Subjects Effects					
Source	Sum of Squares	df	Mean Square	F	p
Shyness	.11	1	.11	<1.0	.823
Gender	.35	1	.35	<1.0	.686
Shyness* Gender	.40	1	.40	<1.0	.668
Within-Subjects Effects					
Sessions	2.13	1	2.13	1.244	.267
Sessions* Shyness	22.82	1	22.82	13.35	.000
Sessions* Gender	.09859	1	.09859	<1.0	.811
Sessions* Shyness* Gender	.05001	1	.05001	<1.0	.865

Figure 7.12

Responses to Conversation for Shy and Not-Shy Children during Free Play Sessions 1 and 2



7.3.4.4 Frequency of Both Initiations and Responses in Conversations with Peers

H3.3 Shy children make fewer *initiations and responses* to conversations initiated by peers during Free Play than do Not-Shy children.

The means and the standard deviations of the number of both *Initiations and Responses* made by Shy and Not-Shy boys and girls in the two Free Play sessions are presented in Table 7.30. Table 7.31 summarizes the findings of ANOVA. The hypothesis was supported, in that there was a significant main effect of shyness ($F [1, 104] = 70.78, p < .001$). Shy children were significantly less likely to *Initiate and Respond* to conversations with peers than were Not-Shy children, respective means of 0.44 and 2.18. No other effects were significant.

Table 7.30

Initiations and Responses Made by Children in Conversations with Peers: Means and Standard Deviations for Shy and Not-Shy Boys and Girls during Free Play Sessions 1 and 2

Sessions		Mean number of Initiations and Responses Made by a Child in Conversations with Peers (Std Deviation)		
		Shy children	Not-Shy children	Total
Session 1	Boys	.70 (1.45)	2.30 (1.51)	1.66 (1.67)
	Girls	.31 (.97)	1.88 (1.90)	1.02 (1.65)
	Total	.46 (1.18)	2.11 (1.70)	1.31 (1.68)
Session 2	Boys	.55 (1.10)	2.13 (1.83)	1.50 (1.75)
	Girls	.34 (.60)	2.38 (1.68)	1.26 (1.57)
	Total	.42 (.82)	2.25 (1.75)	1.37 (1.66)

Table 7.31

ANOVA Summary Table: *Initiations and Responses Made by Children in Conversations with Peers*

Between-Subjects Effects					
Source	Sum of Squares	Df	Mean Square	F	p
Shyness	150.90	1	150.90	70.78	.000
Gender	1.88	1	1.88	<1.0	.350
Shyness* Gender	.60	1	.60	<1.0	.596
Within-Subjects Effects					
Sessions	.15	1	.15	<1.0	.783
Sessions* Shyness	.67	1	.67	<1.0	.563
Sessions* Gender	2.35	1	2.35	1.185	.279
Sessions* Shyness*Gender	.77	1	.77	<1.0	.534

7.3.4.5 The Frequency of Observed Intervals during which there was No Talk

H3.4 Shy children have a greater frequency of observed intervals during Free Play in which there was *No Talk* than do Not-Shy children.

The means and the standard deviations of scores of the number of the frequency of observed intervals during which there were *No Talk* are presented in Table 7.32. Table 7.33 summarizes the findings of ANOVA. The hypothesis was supported, in that there was a significant main effect of shyness ($F [1, 104] = 175.15, p < .001$). Shy children had more intervals where there was no talk than Not-Shy children had respective means of 8.67 and 2.95. No other effects were significant.

Table 7.32

Frequency of Observed Intervals during which there was No Talk: Means and Standard Deviations for Shy and Not-Shy Boys and Girls during Free Play Sessions 1 and 2

Sessions		Mean the Frequency of No Talk (Std Deviation)		
		Shy Children	Not-Shy Children	Total
Session 1	Boys	8.40 (3.42)	3.00 (2.17)	5.16 (3.80)
	Girls	9.31 (2.69)	3.23 (2.45)	6.59 (3.99)
	Total	8.96 (3.00)	3.11 (2.29)	5.93 (3.95)
Session 2	Boys	8.35 (2.91)	2.73 (2.29)	4.98 (3.76)
	Girls	8.41 (3.19)	2.85 (2.66)	5.91 (4.05)
	Total	8.38 (3.06)	2.79 (2.45)	5.48 (3.93)

Table 7.33

ANOVA Summary Table: Frequency of Observed Intervals during
which there was No Talk

Between-Subjects Effects					
Source	Sum of Squares	df	Mean Square	F	p
Shyness	1677.31	1	1677.31	175.15	.000
Gender	5.63	1	5.63	<1.0	.445
Shyness* Gender	1.28	1	1.28	<1.0	.716
Within-Subjects Effects					
Sessions	8.44	1	8.44	1.61	.207
Sessions* Shyness	.30	1	.30	<1.0	.810
Sessions* Gender	3.10	1	3.10	<1.0	.443
Sessions* Shyness* Gender	1.78	1	1.78	<1.0	.561

7.3.4.6 Summary

To sum up, significant mean differences in measures of the frequency of initiating conversations with peers (*Conversations Initiated*), the frequency of *Both Initiations and Responses* to conversations initiated by peers, and the frequency of observed intervals during in which there was *No Talk* were observed between Shy children and Not-Shy children during Free Play in the classroom. Shy children did not initiate as much conversation as Not-Shy children. They were more reticent and participated less in conversation during both Free Play sessions, indicated by the significant difference between their means and those of Not-Shy children for the frequency of initiations and responses in conversations with peers (Shy children obtained a lower mean than Not-Shy children) and the frequency of observed intervals

during which there was no talk during Free Play (Shy children obtained a higher mean than Not-Shy children).

It is noteworthy that shyness did not influence children's responses to conversation initiated by peers, and the ANOVA revealed no significant effect of shyness on the frequency of intervals where there was a response to talk directed from peers.

However, there was a significant interaction effect between shyness and sessions, where both Shy and Not-Shy children showed differences in their responses to conversations initiated by peers from one session to another, suggesting the importance of the influence of sessions on the children's verbal behaviour.

Table 7.34 showed the summary of significant main and interaction effects in "Show and Tell" and Free Play sessions 1 and 2, and Table 7.35 showed also the summary of significant main and interaction within-subjects' effects in both sessions of "Show and Tell" and Free Play.

As was the case with measures from "Show and Tell" sessions the differences between Shy and Not-Shy children on free play measures are large. The mean number of conversations initiated and mean number of sessions where there was no talk were both more than one standard deviation smaller for Shy children than the corresponding means of Not-Shy children. In fact the means were some three times smaller.

Table 7.34

Summary of Significant Main and Interaction Effects
in “Show and Tell” and Free Play Sessions 1 and 2

Between-Subjects Effects				
Results from “Show and Tell” Sessions 1 and 2				
Dependent Variable		Significant Independent Variables		
No.	Variable Name	Shyness	Gender	Shyness by Gender
1	Scores from Vocabulary Test	✓		
2	Number of Words	✓		
3	Number of Utterances	✓	✓	
4	Mean Length of Utterances	✓		
5	Number of Questions the Child was Asked			
6	Number of Verbal Responses	✓		
7	Number of No-Responses to Teachers’ Question	✓		
8	Number of Nonverbal Responses	✓		
9	Number of Words Volunteered	✓		
10	No. of Utterances Volunteered	✓		
Results from Free Play Sessions 1 and 2				
11	Conversation Initiated	✓		
12	Responses to Initiations			
13	Both Initiations and Responses	✓		
14	No Talk	✓		

Table 7.35

Summary of Significant Main and Interaction Within-Subjects' Effects in "Show and Tell" and Free Play Sessions 1 and 2

Within-Subjects Effects					
Results from "Show and Tell" Sessions 1 and 2					
Dependent Variable		Significant Independent Variables and Interactions			
No.	Variable Name	Sessions	Sessions by Shyness	Sessions by Gender	Sessions by Shyness by Gender
1	Scores from Vocabulary Test				
2	Number of Words				
3	Number of Utterances	✓			
4	Mean Length of Utterances				✓
5	Number of Questions the Child was Asked	✓			
6	Number of Verbal Responses	✓			
7	Number of No-Responses to Teachers' Question			✓	
8	Number of Nonverbal Responses				
9	Number of Words Volunteered				
10	Number of Utterances Volunteered				
Results from Free Play Sessions 1 and 2					
11	Conversation Initiated		✓		
12	Responses to Initiations		✓		
13	Both Initiations and Responses				
14	No Talk				

7.4 Part Three: Exploring Relationships between Variables

7.4.1 Introduction

In order to explore the relationships between variables, a series of correlation analyses were carried out.

Three sets of correlation analysis were conducted. In the first set, relationships between “Show and Tell” variables from each session and scores from *Teachers’ Shyness Checklist*, *Parents’ Shyness Checklist*, and *Vocabulary Test* were examined. “Show and Tell” variables included in this analysis are *Number of Words*, *Number of Utterances*, *Mean Length of Utterances*, *Number of Questions* the child was asked, *Number of Verbal Responses to Teachers’ Questions*, *No Responses*, *Nonverbal Responses*, *Words Volunteered*, and *Utterances Volunteered*. The second set of correlation analyses examined the relationships between Free Play variables for both sessions and scores from *Teachers’ Shyness Checklist*, *Parents’ Shyness Checklist*, and *Vocabulary Test*. Free Play variables included in this analysis are *Initiate Conversation*, *Response to Conversation*, *Both Initiate and Responses* and *No Talk*.

The third set of correlation analyses examined the relationship between “Show and Tell” Variables and measures from Free Play for both sessions.

7.4.2 Correlations between “Show and Tell” Variables and Scores from Teachers’ Shyness Checklist, Parents’ Shyness Checklist and Vocabulary Test

The Pearson product-moment correlation coefficient was computed between variables for “Show and Tell” sessions 1 and 2, and the scores derived from *Teachers’ Shyness Checklist*, *Parents’ Shyness Checklist*, and *Vocabulary Test*. The results are presented in Table 7.36 for each session.

Teachers’ Shyness Checklist ratings correlated significantly with all measures in both sessions except for the variable *Number of Questions*. The highest correlations coefficients were between teacher ratings and *Number of Words* and *MLU* (-0.57, -0.59 respectively) in the first session and (-0.56, -0.59 respectively) in the second session. This indicates that Shy children talk less and use shorter utterances than Not-Shy children when they talk with teachers and peers in “Show and Tell” sessions.

A similar pattern was obtained for Parents’ Checklist scores, which correlated with all measures except for *Number of Questions* in both sessions 1 and 2, *Nonverbal Responses* in the first session and *Verbal Responses* in the second session. The correlation coefficients are generally higher for teachers’ ratings than for parents’ ratings. A similar pattern is found for correlations between Show and Tell measures and vocabulary test scores: children with higher vocabulary scores tended to be more talkative.

Table 7.36

Correlation Coefficients for the Verbal Behaviour of Children Measures in “Show and Tell” Sessions 1 and 2 with Scores from Teachers’ Shyness Checklist, Parents’ Shyness Checklist, and Vocabulary Test

Variables	Teachers’ Shyness Checklist	Parents’ Shyness Checklist	Vocabulary Test Scores
Session 1			
Number of Words	-.57**	-.37**	.43**
Number of Utterances	-.50**	-.35**	.39**
Mean Length of Utterances	-.59**	-.37**	.35**
Number of Questions	.11	-.05	.14
Verbal Responses	-.27**	-.28**	.30**
No Responses	.53**	.39**	-.20*
Nonverbal Responses	.37**	.14	-.18
Words Volunteered	-.47**	-.20*	.22*
Utterances Volunteered	-.48**	-.23*	.24*
Session 2			
Number of Words	-.56**	-.24*	.37**
Number of Utterances	-.45**	-.14	.32**
Mean Length of Utterances	-.59**	-.33**	.32**
Number of questions	-.16	.07	.13
Verbal Responses	-.38**	-.08	.25**
No Responses	.42**	.20*	-.21*
Nonverbal Responses	.25*	.21*	-.18
Words Volunteered	-.45**	-.22*	.33**
Utterances Volunteered	-.43**	-.23*	.32**

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

7.4.3 Correlations between Free Play Variables with Scores from *Teachers' Shyness Checklist, Parents' Shyness Checklist* and *Vocabulary Test*

Table 7.37 provides details of Pearson Correlation Coefficients between variables measured during Free Play sessions 1 and 2, and scores from *Teachers' Shyness Checklist, Parents' Shyness Checklist*, and *Vocabulary Test*.

The correlations were generally significant, the exceptions largely concerning responses to a conversation. The highest correlation coefficients were between scores from teacher ratings and *Conversations Initiated* and *No Talk*, -0.64 and 0.69 in the first session and -0.68 and 0.66 in the second session respectively. These patterns of correlation show indications to Not-Shy children's talkativeness and Shy children's silence during Free Play.

In most cases the coefficients involving the teacher ratings are substantially higher than those involving parents' ratings. As was the case for "Show and Tell", vocabulary test scores correlated significantly with the measures of verbal behaviour during Free Play, with the exception of *Responses to Initiations* in the second session.

Table 7.37 shows similar results for Free Play session 2.

Table 7.37

Correlation Coefficients for the Verbal Behaviour of Children in
Free Play Sessions 1 and 2 with Teachers' Shyness Checklist,
Parents' Shyness Checklist and Vocabulary Test Scores

Variables	Teachers' Shyness Checklist scores	Parents' Shyness Checklist scores	Vocabulary Test scores
Session 1			
Conversations Initiated	-.64**	-.33**	.27**
Responses to Initiations	-.23*	-.14	.25**
Both Initiations and Responses	-.45**	-.16	.39**
No Talk	.69**	.33**	-.44**
Session 2			
Conversations Initiated	-.68**	-.38**	.32**
Responses to Initiations	.16	.03	-.18
Both Initiations and Responses	-.53**	-.36**	.39**
No Talk	.66**	.44**	-.36**

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

7.4.4 Correlations between “Show and Tell” 1 and 2 Variables and Measures from Free Play 1 and 2

The correlations between “Show and Tell” and Free Play variables (see Table 7.38) were in the most part statistically significant, ranging from 0.21 to 0.52, with the exception of correlations that involved the “Show and Tell” variables *Number of Questions* and those involving the Free Play variable *Responses to Initiations*. The pattern was similar across sessions. If children tended to be reticent during “Show and Tell”, they also tended to be quiet during Free Play even though these activities make different demands on them. The correlations confirm the findings from the ANOVA, that scores on the *Number of Questions* variable are distinct from the other measures of verbal behaviour; the number of questions that teachers ask children, whether or not

they are shy, do not provide an indication of the children's reticence in "Show and Tell".

Table 7.38

Correlation Coefficients between the Features of Children's Talk Measures in "Show and Tell" Sessions 1 and 2 and the Verbal Behaviour of Children during Free Play Sessions 1 and 2 for Shy and Not- Shy Children

Variables	Conversations Initiated	Responses to Initiations	Both Initiations and Responses	No Talk
Session 2				
Number of Words	.45**	.08	.45**	-.51**
Number of Utterances	.41**	.09	.34**	-.43**
Mean Length of Utterances	.43**	.16	.46**	-.52**
No. of questions	-.06	-.10	-.03	.10
Verbal Responses	.23*	.07	.10	-.21*
No Responses	-.40**	-.26**	-.17	.43**
Nonverbal Responses	-.32**	-.13	-.16	.32**
Words Volunteered	.42**	.00	.41**	-.44**
Utterances Volunteered	.44**	.02	.40**	-.46**
Session 2				
Number of Words	.52**	-.21*	.33**	-.44**
Number of Utterances	.37**	-.16	.28**	-.32**
Mean Length of Utterances	.51**	-.14	.30**	-.46**
No. of questions	-.03	-.03	-.09	.10
Verbal Responses	.21*	-.06	.14	-.17
No Responses	-.37**	.01	-.32**	.41**
Nonverbal Responses	-.30**	.08	-.29**	.34**
Words Volunteered	.48**	-.14	.28**	-.43**
Utterances Volunteered	.46**	-.15	.31**	-.42**

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

7.5 Part Four:

Vocabulary Test Scores' Contribution to Predicting the Differences in the Verbal Behaviour in “Show and Tell” and Free Play Sessions

7.5.1 Introduction

So far, significant differences have been identified between Shy and Not-Shy children in scores derived from the Arabic version of the Picture Vocabulary Test, and in speech measures in “Show and Tell” and during Free Play.

The correlation analysis results reported in Part Three of this chapter revealed significant correlations between the scores derived from the vocabulary test and variables from both “Show and Tell” sessions and both Free Play sessions. *Teachers' Shyness Checklist* scores and *Parents' Shyness Checklist* scores correlated significantly with children's verbal behaviour in “Show and Tell” and Free Play sessions. However, the significant relationships between these variables are not sufficient to provide us with an indication of the relative contribution of shyness and vocabulary to children's verbal behaviour.

The next analyses sought to determine whether, and to what extent, differences in vocabulary, shyness, and the interaction between shyness and vocabulary contribute to the differences between Shy and Not-Shy children in their verbal behaviour in “Show and Tell” and during Free Play sessions. It also investigated the possible role of vocabulary in mediating the relation between shyness and verbal behaviour. The study sought to test the following hypotheses:

H4.1 Vocabulary scores predict measures of verbal behaviour in “Show and Tell” and Free Play sessions over and above *Teachers' Shyness* scores.

H4.2 *Vocabulary* scores predict measures of verbal behaviour in Free Play over and above scores in “Show and Tell” sessions, and *Teachers’ Shyness* scores.

H4.3 The interaction of *Vocabulary* and *Teachers’ Shyness* scores predicts measures of verbal behaviour in “Show and Tell” and Free Play sessions.

H4.4 *Vocabulary* scores mediate the relationship between *Teachers’ Shyness* scores and verbal behaviour of children in “Show and Tell” and Free Play sessions.

Multiple Regression analysis tested hypotheses H4.1 to H4.3. In order to carry out this analysis the researcher had to decide which variables to select for inclusion in Multiple Regression analyses. Accordingly, the first step was to examine the inter-correlations between variables in “Show and Tell” sessions 1 and 2, and the inter-correlations between variables representing children’s verbal behaviour during Free Play sessions 1 and 2.

7.5.2 Inter-correlations between Measures in “Show and Tell” Sessions 1 and 2

Table 7.39 shows the inter-correlations between “Show and Tell” measures within each session. *Number of Words*, *Number of Utterances*, *Mean Length of Utterances*, *Words Volunteered* and *Utterances Volunteered* in session 1 showed high positive correlations with each other, indicating children’s willingness to talk. In contrast, they showed high negative correlations with *No Responses* and *Nonverbal Responses to Questions*, suggesting children’s reluctance to talk. *Number of Questions* directed from teachers to children showed no significant correlation with the *Number of Words*, indicating no relationship between children’s talk in “Show and Tell” 1 and the Number of Questions asked by the teacher.

However, there were significant positive correlations between the *Number of Questions* and the *Number of Utterances*, *Number of Verbal Responses to Questions* and *Nonverbal Responses*, probably because children answered when their teacher asked them questions but their answers were either short or nonverbal answers. On the other hand, if children responded with short utterances or nonverbally, teachers tended to ask them more questions. Moreover, the *Number of Questions* showed low negative correlations with the *Mean Length of Utterances* ($r = -0.19$), *Words Volunteered* ($r = -0.24$), and *Utterances Volunteered* ($r = -0.22$), this is possibly because the more a child gave long utterances and volunteered words and utterances the less the teacher was likely to ask him/her questions.

The relationship between *Number of Verbal Responses to Questions* and other variables varied. It had a high and positive correlation with *Number of Words*, *Number of Utterances* and *Number of Questions*, a positive but modest significant correlation with *Mean Length of Utterances* ($r = 0.22$), and a negative high correlation ($r = -0.44$) and negative low correlation ($r = -0.16$) with *No Responses* and *Nonverbal Responses*, respectively. Similar results were also found for session 2 and are shown in Table 7.39.

Table 7.39

Inter-correlations between "Show and Tell" Variables for Sessions 1 and 2

Variable	Numbs of Word	Number of Utterances	Mean Length of Utterances	Number of Questions	Number of Verbal Responses	No Responses	Nonverbal Responses	Words Volunteered	Utterances Volunteered
Session 1									
Number of Words									
Number of Utterances	.91**								
Mean Length of Utterances	.83**	.60**							
Number of Questions	.08	.34**	-.19*						
Number of Verbal Responses	.50**	.74**	.22*	.75**					
No Responses	-.57**	-.57**	-.56**	.21*	-.44**				
Nonverbal Responses	-.50**	-.43**	-.46**	.42**	-.16	.55**			
Words Volunteered	.82**	.65**	.69**	-.24*	.10	-.41**	-.46**		
Utterances Volunteered	.82**	.68**	.67**	-.22*	.13	-.42**	-.45**	.99**	
Session 2									
Number of Words									
Number of Utterances	.90**								
Mean Length of Utterances	.77**	.47**							
Number of Questions	.16	.43**	-.19						
Number of Verbal Responses	.53**	.76**	.17	.80**					
No Responses	-.66**	-.67**	-.55**	-.01	-.55**				
Nonverbal Responses	-.44**	-.39**	-.39**	.27**	-.27**	.50**			
Words Volunteered	.84**	.66**	.69**	-.12	.20*	-.50**	-.37**		
Utterances Volunteered	.85**	.73**	.61**	-.09	.24*	-.50**	-.38**	.96**	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

7.5.3 Inter-correlations between Measures in Free Play Sessions 1 and 2

Table 7.40 provides details of inter-correlations between measures in each session. In the first session the correlations between *No Talk*, *Conversations Initiated* and *Both Initiations and Responses* were significant, negative and high ($r = -0.84$ and -0.70 respectively), while the correlation between *No Talk* and *Responses to Initiations* from peers was also negative but modest ($r = -0.38$), indicating children's reticence during Free Play 1. *Conversations Initiated* had a modest positive significant correlation of ($r = 0.40$) with *Both Initiations and Responses*. Session 2 produced similar results.

Table 7.40

Inter-correlations between Free Play Variables for Sessions 1 and 2

Variable	Conversations Initiated	Responses to Initiations	Both Initiations and Responses	No Talk
Session 1				
Conversations Initiated				
Responses to Initiations	-.00			
Both Initiations and Responses	.40**	.06		
No Talk	-.84**	-.38**	-.70**	
Session 2				
Conversations Initiated				
Responses to Initiations	-.20*			
Both Initiations and Responses	.36**	-.02		
No Talk	-.82**	-.21*	-.69**	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

7.5.4 Summary

The conclusion that can be drawn from the results reported in Table 7.39 that a large number of variables correlated highly with each other in “Show and Tell”. The Free Play inter-correlations in Table 7.40 revealed a similar pattern where most variables were correlated highly. This implies that these variables measured similar underlying verbal behavioural characteristics. Hence, a data reduction process was necessary to reduce these variables to a smaller number of factors that would explain most of the variance, in order to select variables for the regression analysis. Principal Components Analysis (PCA) was conducted.

Following the procedure recommended by Tabachnick and Fidell (1989) *Number of Utterances in “Show and Tell”* was excluded from the PCA analysis because it correlated almost perfectly with *Number of Words*

The inter-correlations between Free Play variables were examined. Most showed statistically significant inter-correlations with each other as shown in Table 7.40. There was a high correlation between the *No Talk* and all Free Play variables in both sessions 1 and 2, therefore, it was reasonable to choose one of these variables to represent the verbal behaviour of children during Free Play in the regression analysis. *No Talk* was selected.

7.5.5 Principal Components Factor Analysis

These two sets of techniques PCA and Factor analysis (FA) are similar and are used by researchers interchangeably. Both attempt to produce a smaller number of linear combinations of the original variables in a way that captures most of the variability in the pattern of correlations (Pallant, 2001). Some researchers have specifically pointed out the distinguishing characteristics between PCA and FA. Stevens (1992, p. 375) for example, reported the fact that in factor analysis

a mathematical model is set up, and the factors can only be estimated, whereas in Principal Components Analysis we are simply transforming the original variables into the new set of linear combinations (the principal components).

Although PCA and FA often produce similar results, authors differ as to which approach they recommend. Stevens, (1992) acknowledges a preference for principal components analysis and suggests that it is psychometrically sound, simpler mathematically, and avoids some of the potential problems with indeterminacy associated with factor analysis.

Principal components analysis was selected for the present study because its goal of arriving at a relatively small number of components that will extract most of the variance of a relatively large set of indicators is consistent with the purpose of the analysis.

PCA can be used to reduce the remaining eight “Show and Tell” variables to a simple component structure. However, PCA does little to facilitate interpretation of the components. To increase their interpretability, the researcher decided to group those variables most closely correlated, in order to make sense of the combined verbal behaviour measured in “Show and Tell” 1 and 2. Therefore, it was necessary to use a rotational procedure.

Two types of rotational methods are possible. The first type, *Oblique* rotation, allows for the correlation of items loaded on the factors. However, although it has conceptual advantages it also has practical disadvantages in interpreting, describing, and reporting results. In contrast, *Orthogonal* rotation assumes complete separation of factors and offers ease of interpreting, describing, and reporting results. Hence, *Orthogonal* rotation was chosen for use in the present study because it was desired to

produce separate independent factors not only to simplify the interpretation of the factors but also to facilitate further analytical procedures. Additionally, the *Varimax* technique was favoured over the other *Orthogonal* techniques because it has been reported to be the most efficient and commonly used technique as it allows for the maximum number of rotations and optimum loadings of factors (Tabachnick & Fidell, 1989).

7.5.5.1 Assessing the Data from “Show and Tell” Sessions and Extracting the Factors

The first step in conducting PCA involves preliminary analysis of the data in order to assess the suitability of the data for factor analysis. There are two main issues to consider; the first concerns the test of the strength of the inter-correlations among the set of variables and involves inspecting the correlation matrix for coefficients of .3 and above (Pallant, 2001). The inspection revealed the presence of many coefficients of .3 and above.

The second issue to be addressed concerned the sample size. There is little agreement among authors about how large a sample should be, the general recommendation is the larger sample is better than the smaller one (Tabachnick & Fidell, 1989). A suggestion by some writers is that it is not the overall sample size that is of concern, rather the ratio of subjects to items. Some authors recommend that the ratio of the number of cases and items should be 10 to 1, that is, 10 cases for each item to be factor analysed (Nunnally, 1978) whereas others suggest that five cases for each item is adequate (Pallant, 2001; Tabachnick & Fidell, 1989). Because the ratio of the number of cases to “Show and Tell” variables subjected to factor analysis in the present study is 12 to 1, the researcher considered the sample size to be adequate.

Principal Components analysis on the eight variables in “Show and Tell” 1 was conducted. In order to determine how many components to extract the researcher needed to consider information provided in the output. Two components recorded eigenvalues above 1.0 (4.27, 1.90). These two components explained a total of 77.1 per cent of the variance. Moreover, most of the items loaded quite strongly (above 0.4) on the first component, and few items loaded on the second component.

7.5.5.2 Rotation of Factors

Having determined the number of factors, the next step was to attempt to interpret them. The factors were rotated using the Varimax method in order to obtain simple structure and a solution that is easy to interpret.

7.5.5.3 Interpretation of the Results of PCA of “Show and Tell”

Measures

This section interprets the results of conducting Principal Components analysis on the eight variables in “Show and Tell” 1. Table 7.41 shows the factor loadings of the variables following Varimax rotation.

Two components were extracted. Factors 1 and 2 contributed 53.26% and 23.82% of the variance respectively (see Table 7.41). Tabachnick and Fidell (1989) reported that PCA can only reveal statistical patterns in variables, it does not provide interpretation. The researcher is therefore required to make an inference about the components based on observing the grouping and arrangement of the items. The first component seems to represent talkativeness. The variables that were best represented by factor 1 were *Number of Words*, *Words Volunteered*, *Utterances Volunteered*, *Mean Length of Utterances*, *No Responses* (negative loading), and *Nonverbal Responses* (negative loading).

Studies using “Show and Tell” sessions as a means to measure verbal behaviour of Shy and Not-Shy children are scarce. Consequently, it is difficult to compare the above results with those of other studies. Nevertheless, several studies have used some of the variables reported in this study as indicators for identifying differences between talkative and reticent children. Van Kleeck and Street (1982) used *MLU* to compare talkative and reticent preschoolers. Crozier and Perkins (2002) used *Number of Words* and *MLU* to measure differences in children’s speech in an assessment situation. *Number of Words*, *Mean Length of Utterances*, *Words Volunteered* and *Utterances Volunteered* were used by Evans as fluency variables in a study designed to investigate the discourse characteristics of reticent children and their peers in “Show and Tell” sessions (Evans, 1987).

The second component as shown in Table 7.41 is best represented by two variables, namely, *Number of Questions* and *Number of Verbal Responses to Teachers’ Questions*. Since the variables that have high loadings on this component mainly related to asking questions, this component refers specifically to questions the children were asked and their responses to them.

Table 7.41

Factor Loading of “Show and Tell” Session 1 Variables Based on
Principal Components Analysis Using Varimax Rotation

Variables	Factor 1	Factor 2
Numbers of Words	.91	.31
Words Volunteered	.90	
Utterances Volunteered	.89	
Mean Length of Utterances	.85	
No Responses	-.70	
Nonverbal Responses	-.68	
Number of Questions		.93
Number of Verbal Response		.93
Eigenvalues	4.26	1.91
Percentage of Variance	53.26	23.82
Cumulative Percentage	77.08	

Table 7.41 shows that a two-factor solution explained a total of 77.08% of the variance, with component 1 (*Talkativeness*) contributing 53.26% and component 2 contributing 23.82%.

The same procedure was conducted for the second “Show and Tell” session and a similar solution was obtained. The two factor solution explained a total of 76.64% of the variance, with component 1 (*Talkativeness*) contributing 51.95% and component 2 contributing 24.69% (see Table 7.42).

Table 7.42

Factor Loading of “Show and Tell” Session 2 Variables Based on
Principal Components Analysis Using Varimax Rotation

Variable	Factor 1	Factor 2
Words Volunteered	.91	
Number of Words	.91	.31
Utterances Volunteered	.89	
Mean Length of Utterances	.83	
No Responses	-.72	-.31
Nonverbal Responses	-.61	
Number of Questions		.95
Number of Verbal Response		.94
Eigenvalues	4.16	1.98
Percentage of Variance	51.95	24.69
Cumulative Percentage	76.64	

On the basis of these findings and consideration of measures reported in previous research, the researcher chose *Mean Length of Utterances* to represent the *Talkativeness* component.

The second component resulting from PCA of “Show and Tell” sessions 1 and 2 consisted of variables best represented by the variables of *Number of Questions* and *Number of Verbal Responses to Questions*. The researcher decided to select *Number of Verbal Responses to Questions* to represent this component.

7.5.6 Multiple Regression Analysis

7.5.6.1 Introduction

This stage of the analysis brings us closer to testing hypotheses H4.1, H4.2 and H4.3. This section presents the results from Multiple Regression analyses. It aimed to test the contribution of the three independent variables *Teachers' Shyness* scores, *Vocabulary* scores and the interaction between them to explaining the variance in children's verbal behaviour in "Show and Tell" and Free Play sessions represented by *MLU*, *Number of Verbal Responses to Teachers' Questions* and *No Talk* as dependent variables and the contribution of Shyness, Vocabulary and the verbal behaviour in "Show and Tell" to predict No Talk during Free Play. Of particular interest is whether *Vocabulary* makes a significant contribution when shyness has been included in the regression equation. Analysis was carried out separately for each session. In addition, the interaction between *Teachers' Shyness* scores and *Vocabulary* scores was added as an independent variable to the equation predicting the verbal behaviour of children in both Show and Tell and Free Play sessions.

7.5.6.2 Predicting the Verbal Behaviour of Children in "Show and Tell" and Free Play Sessions from Teachers' Shyness Scores and Vocabulary Scores

H4.1 *Vocabulary Scores* predict measures of verbal behaviour in "Show and Tell" and Free Play sessions over and above *Teachers' Shyness* scores.

When *MLU* was the dependent variable, *Teachers' Shyness* scores significantly predicted *MLU* in both sessions (see Table 7.43), but *Vocabulary* scores did not (session 1: Beta = 0.05, $p = 0.622$; session 2: Beta = 0.01, $p = 0.947$). R^2 was .35 for each session.

Vocabulary did not predict the second talkativeness component, *Number of Verbal Responses to Teachers' Questions* (Beta = 0.16, p = 0.153 for session 1; Beta = 0.09, p = 0.381 for session 2). *Teachers' Shyness* scores predicted this dependent variable but only in session 2; for session 1, Beta = -0.19, p = 0.078. The model accounted for only a small proportion of the variance in each session; respective values of R² are 0.09 and 0.15. Table 7.43 presents the outcome of the analyses.

Table 7.43

Multiple Regression Analysis of Shy and Not-Shy Children's (*MLU*) and (*Number of Verbal Responses to Questions*) in "Show and Tell" Sessions 1 and 2

MLU						
Independent variables	Session 1			Session 2		
	Beta	p	R ²	Beta	p	R ²
Vocabulary Scores	.05	.622	.35	.01	.947	.35
Shyness Scores	-.57	.000		-.58	000	
Number of Verbal Responses to Questions						
Independent variables	Session 1			Session 2		
	Beta	p	R ²	Beta	p	R ²
Vocabulary Scores	.16	.153	.09	.09	.381	.15
Shyness Scores	-.19	.078		-.33	.002	

Dependent Variables: *MLU* and *Number of Verbal Response to Questions* in "Show and Tell" Sessions 1 and 2.

When *No Talk* in Free Play sessions was the dependent variable, *Teachers' Shyness* scores significantly predicted *No Talk* (see Table 7.44), but *Vocabulary* scores did not (session 1: Beta = -0.15, p = 0.06; session 2: Beta = -0.01, p = 0.889).

Table 7.44

Multiple Regression Analysis of Shy and Not-Shy Children's *No Talk* in
Free Play Sessions 1 and 2

No Talk						
Independent variables	Session 1			Session 2		
	Beta	p	R ²	Beta	p	R ²
Vocabulary Scores	-.15	.063	.50	-.01	.889	.46
Shyness Scores	.62	.000		.67	.000	

Dependent Variables: *No Talk* in Free Play sessions 1 and 2.

7.5.6.3 Summary

Conclusions drawn from the results of regression analysis obtained from the tests of Hypothesis H4.1 in “Show and Tell” and Free Play sessions 1 and 2 are that *Teachers' Shyness* scores made a statistically significant contribution to predicting *MLU* and *No Talk* independently of *Vocabulary* scores in both sessions and predicted *Number of Verbal Responses to Teachers' Questions* in session 2 but not in session 1.

7.5.6.4 Predicting the Verbal Behaviour of Children during Free Play Sessions from Vocabulary Scores, the Verbal Behaviour of Children in “Show and Tell” Sessions and Teachers' Shyness Scores

H4.2: *Vocabulary Scores* predict measures of verbal behaviour in Free Play over and above scores in “Show and Tell” sessions and *Shyness* scores.

No Talk in Free Play session 1 was entered into a Multiple Regression analysis as the dependent variable. The independent variables were “Show and Tell” *MLU* for session 1, *Teachers' Shyness* scores and *Vocabulary* scores. This analysis was carried out for the second session as well. In two further analyses *MLU* was replaced by

Number of Verbal Responses to Teachers' Questions. The results of the four analyses are summarized in Table 7.45.

In none of the regression analyses did the measure of talkativeness from “Show and Tell” or *Vocabulary* scores predict the Free Play dependent variable. On the other hand, *Teachers' Shyness* scores predicted *No Talk* in all four analyses.

Table 7.45

Multiple Regression Analysis with Shy and Not-Shy Children's Verbal Behaviour (*No Talk*) in Free Play Sessions 1 and 2 as Dependent Variable

No Talk						
Independent variables	Session 1			Session 2		
	Beta	p	R ²	Beta	p	R ²
MLU	-.17	.056	.51	-.09	.322	.44
Vocabulary Scores	-.15	.072		-.02	.853	
Shyness Scores	.52	.000		.59	.000	

No Talk						
Independent variables	Session 1			Session 2		
	Beta	p	R ²	Beta	p	R ²
Number of Verbal Responses	-.00	.959	.50	.09	.300	.44
Vocabulary Scores	-.15	.067		-.24	.78	
Shyness Scores	.62	.000		.68	.000	

The Dependent Variable: *No Talk*

7.5.6.5 Summary

Hypothesis H4.2 is not supported for *MLU* or for the *Number of Verbal Responses to Teachers' Questions* in either session 1 or 2.

7.5.6.6 Predicting the Verbal Behaviour of Children in “Show and Tell” and Free Play Sessions 1 and 2 from the Interaction between Vocabulary Scores and Teachers’ Shyness Scores

H4.3 The interaction between *Vocabulary* and *Teachers Shyness* scores predicts measures of verbal behaviour in “Show and Tell” and Free Play sessions 1 and 2

A Hierarchical Multiple Regression analysis was used to test the interaction between *Vocabulary* scores and *Teachers’ Shyness Checklist* scores to predict *MLU* and the *Number of Verbal Responses to Questions* in both “Show and Tell” sessions and *No Talk* in both Free Play sessions.

For each session of “Show and Tell” *MLU* and *Number of Verbal Responses* were entered as a dependent variable in four separate analyses, *z scores of Vocabulary*, *z scores of Teachers’ Shyness Checklist* and the interaction between them (*z scores of Vocabulary* multiplied by *z scores of Teachers’ Shyness* scores) as independent variables. The results of the four analyses are presented in Tables 7.46, 7.47, 7.48, and 7.49.

When *MLU* was the dependent variable in Tables 7.46 and 7.47, initially *Vocabulary z scores* and *Teachers’ Shyness z scores* explained the variance in the verbal behaviour in “Show and Tell”. When the interaction between the *Vocabulary z scores* and *Teachers’ Shyness z scores* was added to the equation it did not add significantly to the variance explained. This was the case for both sessions. The interaction variable did not make any significant contribution to the increase in R^2 (Session 1: $F = 1.71$, $p = 0.194$; Session 2: $F = 0.01$, $p = 0.935$).

Table 7.46

**Multiple Regression Analysis of Shy and Not-Shy Children's Verbal Behaviour (*MLU*)
in "Show and Tell" Session 1 including the Interaction between Vocabulary and
Shyness Scores**

Model		Beta	t	p	R Square	R Square Change	F Change	p for F- Change
1	Z Scores of Vocabulary Test	.35	3.77	.000	.12	.12	14.18	.000
2	Z Scores of Vocabulary Test	.09	.96	.338	.35	.23	35.45	.000
	Z Scores of Teacher Shyness	-.55	-5.95	.000				
3	Z Scores of Vocabulary Test	.08	.82	.417	.36	.01	1.71	.194
	Z Scores of Teacher Shyness	-.56	-6.10	.000				
	Z Scores of Vocabulary by Z Scores of Teachers' Shyness	-.11	-1.31	.194				
R = .603 , R Square = .364 , F = 18.855 , p < 0.001								

Dependent Variable: *MLU* in Session 1

Table 7.47

Multiple Regression Analysis of Shy and Not-Shy Children's Verbal Behaviour (*MLU*)
in "Show and Tell" Session 2 including the Interaction between Vocabulary and
Shyness Scores

Model		Beta	t	p	R Square	R Square Change	F Change	p for F-Change
1	Z Scores of Vocabulary Test	.32	3.40	.001	.10	.10	11.59	.001
2	Z Scores of Vocabulary Test	.05	.55	.586	.35	.24	37.3	.000
	Z Scores of Teacher Shyness	-.56	-6.11	.000				
3	Z Scores of Vocabulary Test	.05	.55	.584	.35	.000	.01	.935
	Z Scores of Teacher Shyness	-.56	-6.00	.000				
	Z Scores of Vocabulary by Z Scores of Teachers' Shyness	.01	.08	.935				
R = .589, R square = .347, F = 17. 511 , p < 0.001								

Dependent Variable: *MLU* in Session 2

With *Number of Verbal Responses*, similar results were found, as reported in Tables 7.48, and 7.49; Shyness predicted this dependent variable but only in session 2; the interaction did not add any significant contribution in predicting the talkativeness component, *Number of Verbal Responses* in "Show and Tell" sessions 1 and 2.

For session 1, F ratio for change = 0.05, p = 0.819; for session 2, F = 1.03, p = 0.313.

Table 7.48

Multiple Regression Analysis of Shy and Not-Shy Children's Verbal Behaviour
(*Number of Verbal Responses*) in "Show and Tell" Session 1 including the Interaction
between Vocabulary and Shyness Scores

Model		Beta	t	p	R Square	R Square Change	F Change	p for F- Change
1	Z Scores of Vocabulary Test	.3	3.11	.002	.09	.09	9.67	.002
2	Z Scores of Vocabulary Test	.22	2.01	.047	.11	.02	2.33	.130
	Z Scores of Teacher Shyness	-.16	-1.53	.130				
3	Z scores of Vocabulary Test	.22	2.01	.047	.11	.000	.05	.819
	Z scores of Teacher Shyness	-.16	-1.47	.145				
	Z Scores of Vocabulary by Z Scores of Teachers' Shyness	.02	.23	.819				
R = .330, R Square = .109, F = 4.021, p < 0.01								

A Dependent Variable: the *Number of Verbal Responses* in session 1

Table 7.49

Multiple Regression Analysis of Shy and Not-Shy Children's Verbal Behaviour
(*Number of Verbal Responses*) in "Show and Tell" Session 2 including the Interaction
between Vocabulary and Shyness Scores

Model		Beta	t	p	R Square	R Square Change	F Change	p for F-Change
1	Z Scores of Vocabulary Test	.25	2.57	.012	.06	.06	6.59	.012
2	Z Scores of Vocabulary Test	.09	.82	.412	.15	.09	10.09	.002
	Z Scores of Teacher Shyness	-.33	-3.18	.002				
3	Z scores of Vocabulary Test	.1	.93	.354	.16	.01	1.03	.313
	Z scores of Teacher Shyness	-.32	-2.99	.004				
	Z Scores of Vocabulary by Z Scores of Teachers' Shyness	.1	1.01	.313				
R = .395 , R Square = .156 , F = 6.100 , p < 0.001								

Dependent Variable: the *Number of Verbal Responses* in session 2

When *No Talk* in Free Play session 1 and 2 were the dependent variables in Tables 7.50 and 7.51, initially *Vocabulary z scores* and *Teachers' Shyness z scores* explained the variance in the children's silence during Free Play. When the interaction between the *Vocabulary z scores* and *Teachers' Shyness z scores* was added to the equation it did not add significantly to the variance explained. This is was the case for both sessions. The interaction variable did not make any significant contribution to the increase in R^2 (Session 1: $F = 2.17$, $p = 0.144$; Session 2: $F = 1.38$, $p = 0.243$).

Table 7.50

Multiple Regression Analysis of Shy and Not-Shy Children's Verbal Behaviour (*No Talk*) in Free Play Session 1 including the Interaction between Vocabulary and Shyness

Scores

Model		Beta	t	p	R Square	R Square Change	F Change	p for F- Change
1	Z Scores of Vocabulary Test	-.44	-4.85	.000	.19	.19	23.56	.000
2	Z Scores of Vocabulary Test	-.13	-1.64	.104	.49	.30	59.50	.000
	Z Scores of Teacher Shyness	.63	7.71	.000				
3	Z Scores of Vocabulary Test	-.15	-.81	.074	.50	.01	2.17	.144
	Z Scores of Teacher Shyness	.61	7.45	.000				
	Z Scores of Vocabulary by Z Scores of Teachers' Shyness	-.11	-1.47	.144				
R = .709 , R Square = .503 , F = 33.335 , p < 0.001								

Dependent Variable: the *No Talk* in Free Play Session 1

Table 7.51

Multiple Regression Analysis of Shy and Not-Shy Children's Verbal Behaviour (*No Talk*) in Free Play Session 2 including the Interaction between Vocabulary and Shyness Scores

Model		Beta	t	p	R Square	R Square Change	F Change	p for F- Change
1	Z Scores of Vocabulary Test	-.33	-3.53	.001	.11	.11	12.46	.001
2	Z Scores of Vocabulary Test	-.01	-.14	.889	.46	.35	62.62	.000
	Z Scores of Teacher Shyness	.67	7.91	.000				
3	Z Scores of Vocabulary Test	.00	.03	.978	.46	.01	1.38	.243
	Z Scores of Teacher Shyness	.69	8.01	.000				
	Z Scores of Vocabulary by Z Scores of Teachers' Shyness	.09	1.17	.243				
R = .680, R Square = .463 , F = 28.155 , p < 0.001								

Dependent Variable: the *No Talk* in Free Play Session 2

7.5.6.7 Summary

The findings from this series of multiple regression analyses are consistent. The measure of *Teachers' Shyness* scores predicts the two measures chosen to represent the talkativeness factor in "Show and Tell" and also the Free Play measure, *No Talk*. It predicts the Free Play measure even when the talkativeness measure was included in the regression equation. Conversely, the measure of children's *Vocabulary* did not predict any of the measures of verbal behaviour in the classroom when *Teachers' Shyness* scores were included in the analysis. The correlation analysis did find significant correlations between *Vocabulary* and these measures (Tables 7.36 and 7.37) but these relationships do not remain when the children's shyness is taken into account. There

were no significant contributions of the interaction between *Shyness* and *Vocabulary* in predicting the verbal behaviour in “Show and Tell” and Free Play sessions.

7.6 Part Five: Structural Equation Modelling Analysis

Hypotheses H4.1, H4.2 and H4.3 were tested in the previous sections using the Multiple Regression analysis in order to examine whether and to what extent, differences in Vocabulary scores contribute to the differences between Shy and Not-Shy children in “Show and Tell” and during Free Play sessions, and to examine whether the effect of vocabulary remained significant over and above the effect of *Shyness* scores.

The regression analyses also tested whether *Vocabulary* moderated the effect of *Shyness* on verbal behaviour by testing whether the interaction effect between *Shyness* and *Vocabulary* added significantly to the proportion of the variance explained in verbal behaviour.

The regression analysis results showed the contribution of the independent variables (*Vocabulary* scores, *Teachers’ Shyness* scores and the interaction between them) in one session at a time. To view the contribution of *Shyness* scores and *Vocabulary* scores to predict the verbal behaviour of children in both sessions at the same time and to examine whether vocabulary scores had a mediating role, a path analysis was carried out using the Structural Equation Modelling program, AMOS (Arbuckle & Wothke, 1999). The hypothesis H4.4 was tested as shown in Figure 7.13.

H4.4 *Vocabulary Scores* mediate the relationship between *Shyness* and verbal behaviour of children in “Show and Tell” and Free Play sessions.

The structural equation model permits a test of whether vocabulary mediates the effect of shyness on verbal behaviour. The model structure consisted of (1) *Teachers’*

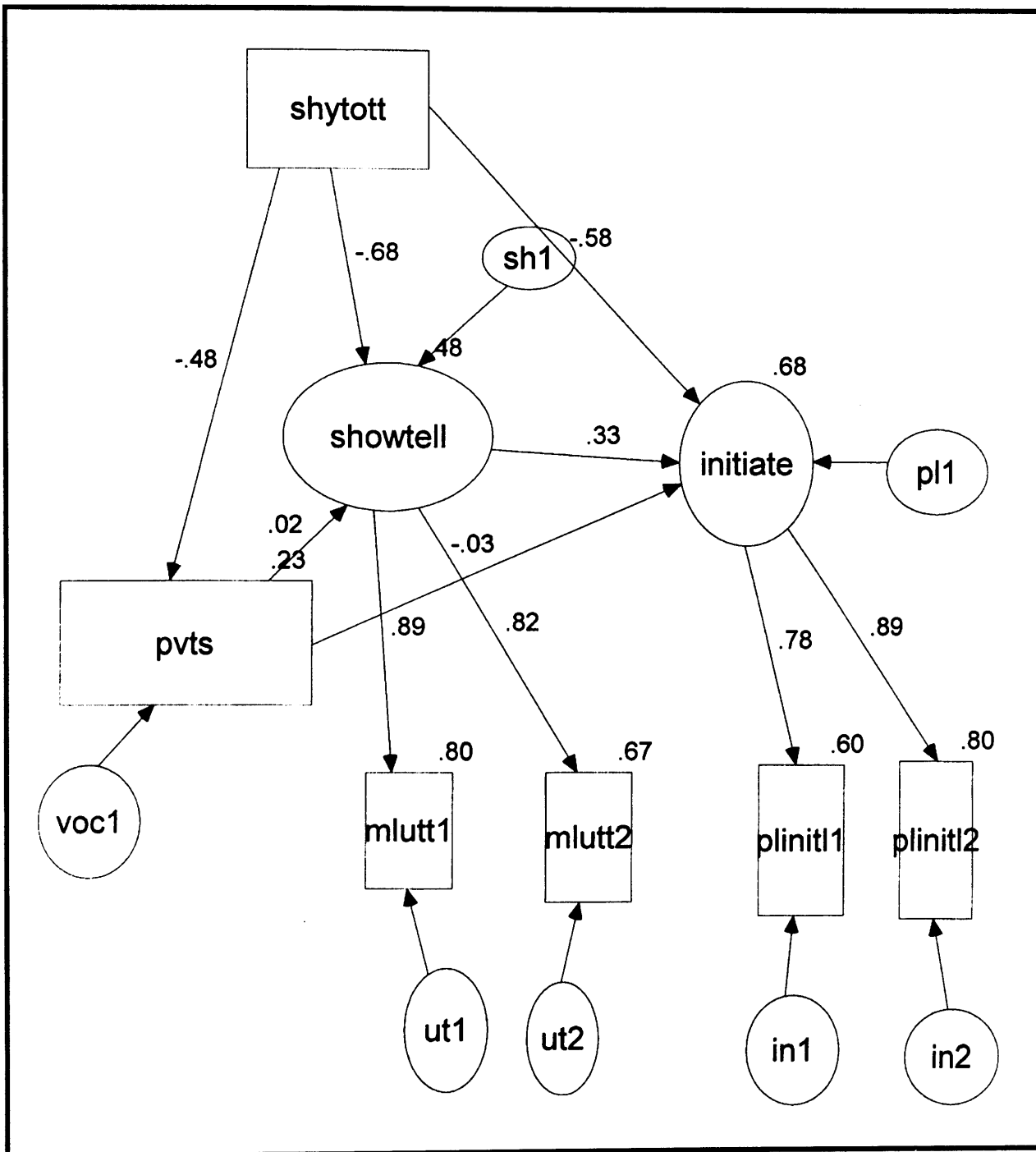
Shyness scores, an observed variable labelled in the model '*shytott*', measured by the total scores on the shyness checklist; (2) *Vocabulary Scores*, also an observed variable labelled '*pvtst*', and measured by the Arabic version of Peabody Picture Vocabulary Test; (3) two latent variables. The first, '*showtell*', is represents children's verbal behaviour in "Show and Tell" which was derived from the two observed variables, *MLU* in each session labelled in the model '*nlutt1*' and '*mlutt2*'. The second latent variable, '*initiate*', represented children's verbal behaviour during Free Play derived from the measure of the frequency of initiating conversations with other children in the two sessions labelled in the model '*plinitl1*' and '*plinitl2*'.

The model provided a reasonable fit to the data: Chi-square = 7.46, d.f. = 5, $p = 0.189$, number of parameters = 25, AGFI = 0.90, CFI = 0.99.

Teachers' Shyness scores predict *Vocabulary* scores (-0.48), the verbal behaviour of children in "Show and Tell" (-0.68), and the verbal behaviour of children in Free Play (-0.58).

The paths between *Vocabulary* scores and the verbal behaviour of children in both "Show and Tell" and Free Play sessions are not significant, standardized regression weights 0.02 and -0.03 respectively, therefore, *Vocabulary* scores did not mediate between *Shyness* scores and the verbal behaviour of children in "Show and Tell" and during Free Play sessions. The "Show and Tell" latent variable also had a moderate link with the Free Play latent variable, with a standardised regression weight of 0.33.

Figure 7.13
The Structural Equation Model



Chapter Eight

Discussion, Implications, Limitations, Recommendations and Conclusion

8.1 Introduction

This chapter discusses the main findings presented in Chapter Seven, places them in a theoretical framework and compares them with the findings established by other studies in the field of shyness and language development of children.

As indicated in the theoretical discussion presented earlier most shyness research has treated shyness as a hypothetical construct that has physiological, cognitive, affective, and behavioural components. The design of the present study was based on the assumption that shyness as a construct is manifest in observable behaviour and can be examined using a psychometric correlational approach. As was the case with previous studies (Van Kleeck & Street, 1982; Evans, 1996; Crozier & Perkins, 2002) the measurement of shyness in this study was undertaken using teachers' ratings of children's shyness. The language development of children was measured by using a variety of approaches including a standardized vocabulary test, systematic measures of children's verbal behaviour in natural settings and an observation of the children's verbal behaviour during free play.

Attempts have often been made to establish a causal link between shyness and variables associated with children's development. The present study did not however, attempt to do this, it attempted only to examine and predict the relationships between variables.

The discussion in this Chapter refers to findings presented in Chapter Seven, with particular reference to the Saudi context and the pre-school centres where the research was conducted, to examine the question of the relation between children's

shyness and their language development. More specifically, the findings are discussed in the context of early childhood education in Saudi Arabia after the introduction of a new pre-school curriculum. The curriculum places a greater emphasis on children's social, cognitive, and physical development through providing them with opportunities to interact socially and verbally with teachers and peers, and to discover the stimulating learning materials in the classroom environment (Samadi & Marwa, 1991).

The major aim of the present study has been to investigate the influence of shyness on some specific aspects of children's language development in Saudi Arabia: their performance on an established vocabulary test, their speech in a natural classroom setting, and their verbal behaviour during free play sessions in classroom. It has also sought to determine whether differences in vocabulary predict differences in "Show and Tell" and free play variables derived from observations of behaviour in these settings. The chapter considers the implications of the findings for further research in this area.

Unlike other studies the present study applied three measures to test these relationships: a test of receptive vocabulary, measures of children's speech in two "Show and Tell" sessions, and measures of children's verbal behaviour in two free play sessions. None of the previous studies tested these three relationships simultaneously.

Data were collected using first, teachers' nominations of shy and non-shy children followed by a shyness checklist which was completed by teachers, as well as the parents' shyness checklist to assess children's shyness from their parents' point of view. The Arabic version of the Peabody Picture Vocabulary Test was administered to both shy and non-shy children to test whether they differed in vocabulary scores. Systematic measurement of selected features (e.g. number of words, number of utterances, mean length of utterances, number of teachers' questions, and number of verbal and nonverbal responses to teachers' questions, number of no responses to

teachers' questions and number of words and utterances volunteered) of children's talk in two "Show and Tell" sessions was undertaken for both groups of children. In addition, structured observation was conducted in order to measure verbal behaviour in two free play sessions.

The present study began with the assumption based on previous research that shy and non-shy children as identified by their teachers differ in their language development. A set of hypotheses was formulated and tested; analysis showed that shy and non-shy children differed in all the measures that were taken of their vocabulary scores and their verbal behaviour features in "Show and Tell" and during free play sessions. The next objective was to consider whether differences in vocabulary test scores predict differences between shy and non-shy children in "Show and Tell" and free play variables and whether vocabulary mediate between shyness and verbal behaviour.

The statistical data analyses were carried out by using the methods described in the methodology chapter. The principal findings of the results are summarized in the following section.

8.2 Summary of the Principal Findings

Results from the analysis of teachers' and parents' shyness checklists indicated the effect of shyness group status on shyness ratings: the two groups of shy and non-shy differed markedly in ratings, even those made by parents, who were unaware of which group their child had been allocated to by the teacher. There were no effects of gender on either set of ratings.

Second, testing the effects of shyness on the vocabulary scores revealed significant differences between shy and non-shy children, shy children obtained lower

scores than their non-shy peers. There was no difference between girls and boys in vocabulary scores nor was there a gender by shyness interaction effect.

Third, the study examined differences in verbal behaviour in the two “Show and Tell” sessions. Significant effects of shyness on all but one measures of talk characteristics of children were identified, i.e. number of words, number of utterances, mean length of utterances, number of verbal responses to teachers’ questions, number of occasions where no responses were made to teachers’ questions, number of nonverbal responses to teachers’ questions and number of words and utterances volunteered. The number of questions children were asked by the teachers did not show any significant effect, and shy children were asked a similar number of questions as were non-shy children. The only significant main effect of gender was on the measure of number of utterances, where boys made significantly more utterances than girls in the two “Show and Tell” sessions.

Mean scores on number of utterances, number of questions children were asked, and number of verbal responses to teachers’ questions differed in the two sessions but they differed for shy and non-shy children in similar ways. In particular, there was no tendency for shy children to be more reticent in the first session, as might be expected given the findings in the literature that shy children are quieter in initial meetings and are ‘slow to warm up’. Presumably the familiarity with the other children and with the “Show and Tell” sessions counteracted this among shy children.

An interaction effect between gender and sessions was specifically found in the measure of no responses to teachers’ questions, and this affected shy and non-shy children in a similar way; there was no tendency for non-shy children to make more responses to teachers’ questions from one session to the other. Although boys and girls

were similar in their frequency of non-responses in the first session, this frequency decreased for boys in the second session and increased for girls in that session.

Finally, there was a significant three-way interaction between shyness, sessions and gender in children's mean length of utterances (MLU). Shy boys had longer MLU in the second session than shy girls; their MLU did not differ in the first session. In contrast, in session 1 non-shy boys had longer MLU than non-shy girls, but these groups did not differ in session 2.

Fourth, regarding the verbal behaviour observation of shy and non-shy children during the two free play sessions, the results showed significant effects for shyness on measures of the observed frequency of initiating conversations with peers, the frequency of observed intervals when they both initiated and responded to conversations initiated by peers, and frequency of observed intervals during in which there was no talk between the child and peers. There was no significant effect of shyness on the frequency of responses in conversations directed from peers.

According to the ANOVA, a significant effect was observed for the interaction between shyness and sessions on the frequency of responses in conversations directed from peers. In the first session shy children responded less in conversation initiated by peers than did non-shy children. This situation is reversed in the second session where shy children responded more than non-shy children to conversations initiated by peers.

The study also examined the correlations between measures of the verbal behaviour of children in the two "Show and Tell" sessions and their scores on the teachers' shyness checklist, parents' shyness checklist, and the vocabulary test, most measures of the children's verbal behaviour in both sessions showed significant correlations with these scores. Correlation analysis were also conducted between all measures of the verbal behaviour of children during the two free play sessions and

scores from the teachers' shyness checklist, parents' shyness checklist, and the vocabulary test. The frequency of intervals during which the child initiated conversation with peers and the frequency of intervals when the child remained quiet had the largest correlation with all these scores in both sessions.

A strong relationship was found between measures of children's verbal behaviour in the two "Show and Tell" sessions and measures taken during the two free play sessions. Specifically, number of words, number of utterances, mean length of utterances children talked and the number of words and utterances volunteered by children in both "Show and Tell" sessions correlated significantly with the frequency of observed intervals during which the child initiated conversation with peers, the frequency of intervals when the child both initiated and responded to conversations initiated by peers, and the frequency of intervals when the child remained quiet in both sessions.

To predict the contribution of vocabulary test scores to the variation in scores derived from the "Show and Tell" and free play sessions multiple regression analysis was undertaken. There were substantial inter-correlations between measures of behaviour in "Show and Tell" and between measures in free play sessions. In order to identify a subset of variables that were not highly inter-correlated, factor analyses were conducted. Principal components analysis of scores on the "Show and Tell" sessions extracted two factors. The first factor was interpreted as *Talkativeness* and the second factor referred specifically to questions the children were asked. Mean length of utterances was selected to represent the *Talkativeness* factor in the regression analysis. Similarly, number of verbal responses to teachers' questions was selected to represent the second factor in the regression analysis.

The regression analyses were conducted to test whether vocabulary scores predicted the mean length of utterances and number of verbal responses to teachers' questions in "Show and Tell" sessions and no talk during free play independently of children's shyness scores. Shyness predicted the dependent variables in the analyses but vocabulary scores did not make a significant contribution to predicting either measure of verbal behaviour.

A further two multiple regression analyses were undertaken to test whether vocabulary scores predict the frequency of silent intervals in both free play sessions over and above shyness and the verbal behaviour in "Show and Tell" sessions.

The first regression analysis was developed with scores of the frequency of intervals when the child remained silent in both free play sessions as the dependent variable. MLU in both "Show and tell" sessions, vocabulary scores, and teachers' shyness scores were the independent variables. Shyness predicted reticence during the two free play sessions over and above scores on MLU and the vocabulary scores.

Similarly, the frequency of intervals when the child remained silent in free play was predicted by shyness over and above scores on number of verbal responses to questions in both "Show and Tell" sessions and vocabulary scores. Neither vocabulary scores nor the verbal behaviour of children in "Show and Tell" made a significant contribution to predicting children's reticence in free play sessions.

The interaction between teachers' shyness scores and the vocabulary scores were entered as independent variable in a hierarchical multiple regression analysis in order to examine its contribution in predicting the verbal behaviour of children in both sessions of "Show and Tell" and free play. The interaction did not add any significant contributions to explain the variance in children's verbal behaviour.

The preceding regression analyses allow us to view the contribution of the predictor variables towards explaining the variance of children's verbal behaviour in each session of "Show and Tell" and free play separately. In order to view this contribution in the two sessions simultaneously a structural equation analysis was carried out using the AMOS program. Shyness predicted vocabulary scores, the mean length of utterance in "Show and Tell" sessions and conversation initiated during free play sessions. However, the paths between vocabulary and the verbal behaviour of children in "Show and Tell" and free play sessions were not significant; therefore, vocabulary scores did not mediate between shyness and verbal behaviour.

In conclusion, these results supported the present study's hypotheses that shy and non-shy children differ in their vocabulary and their verbal behaviour in a natural preschool classroom setting and during free play in the class. The differences are not just statistically significant but are substantial and suggest that the differences are of theoretical and practical significance. Furthermore, it was found that vocabulary scores do not mediate between shyness and verbal behaviour; shyness predicts verbal behaviour in these school settings over and above any differences between shy and non-shy children in vocabulary test scores and the interaction between their shyness and their vocabulary scores. On the other hand shyness also predicts the verbal behaviour of children during free play sessions over and above their verbal behaviour in "Show and Tell" sessions and their vocabulary scores. These findings are discussed in the following section.

8.3 Discussion of Findings

8.3.1 Teachers' and Parents' Shyness Checklist

This section discusses the results involving the teachers' shyness checklist and parents' shyness checklist. There was a significant main effect of children's shyness group status for both teachers' and parents' ratings. That teachers' ratings were consistent with children's assigned shyness status was not a surprising result although it confirms the similarity between teacher ratings in Saudi Arabia and the construct of shyness as it has been identified in research undertaken in USA and the United Kingdom.

This result also implies that teachers and parents distinguish the two concepts of shyness as expressed in the Arabic language. These concepts are *Khajal* which corresponds closely to shyness as an undesirable quality that has been considered in the present study and *Haya* which is a more positive quality. In the pilot study the researcher attempted to ensure that the concept of shyness in English matched the equivalent word for shyness in the Arabic language (*Khajal*), and the finding suggests that this was successful.

The agreement between teachers and parents in their ratings of their children's shyness replicated recent findings by Coplan and Armer (2005) where maternal ratings of shyness were correlated with teacher ratings of anxious behaviours with peers. The literature has reported significant but modest correlations in the ratings by parents and teachers, for example, Stevenson-Hinde and Glover (1996) in their study of 126 children (68 girls, 58 boys) found modest correlations between teachers' and parents' ratings. Nevertheless, the modest nature of the association between teachers' and parents' ratings of their children's shyness in the present study may be due to the fact that parents were unaware of the teacher selections or ratings. It may also be due to a

specific factor which is the difference in the number of items in the teachers' shyness checklist (9 items) and parents' shyness checklist (5 items). However, there are reasons not to expect a close agreement. Research into personality ratings reported that different raters of psychological characteristics of the same child typically do not find high correlations. Children in the present study were assessed in different contexts, in the schools by teachers and at home by parents. Children may behave differently in home and in school. Asendorpf and Meier (1993) found that shy children were shy in school but not at home or with familiar children outside school. Furthermore, the teachers usually compare the children with their peers in the class but the parents assess their children only at home and they do not have access to this comparison with a large number of other children.

8.3.2 Vocabulary Test Performance

No studies have examined the language development of shy and non-shy children in Saudi Arabia or compared their scores on measures of vocabulary. Therefore, the results of the present study are discussed and compared with the results from studies in the Western world.

Studies of shy children's vocabulary that used receptive vocabulary tests have reported mixed findings. Some found no significant differences between shy and non-shy children whereas others showed that shy children obtained significantly lower scores than their average or non-shy peers. Rubin (1982b, cited by Crozier, 2001b), for example, used the PPVT and reported lower scores for isolated pre-school and kindergarten children than for their sociable and normal peers. Crozier and Perkins (2002) reported a similar difference between shy and less shy children with the British Picture Vocabulary Scale. However, other studies have failed to find any significant relationship between shyness and receptive language skills. Rubin and Krasnor (1986,

cited by Crozier, 2001b), for example, found no significant differences between shy and non-shy children on a receptive vocabulary test. A similar result was also found by Coplan, Wichmann and Lagace-Seguin (2001).

On the other hand, studies that have used expressive vocabulary tests regularly report significant differences between shy and non-shy children. Crozier and Hostettler (2003), for example, used the Crichton Vocabulary Scale in order to examine the performance of shy and non-shy children under different conditions of test administration. They found that shy children performed significantly more poorly than their less shy peers. Similar results were also found by Vrinotis and Evans (1988, cited by Evans 1993). The one exception to this finding is a study by Coplan and Armer (2005) that did not find a correlation between shyness and scores on the One Word Picture Vocabulary Test.

Some studies administered both receptive and expressive vocabulary tests, which yield a more inclusive picture of the performance of shy children on language tests. Evans (1996) administered both receptive and expressive vocabulary tests to a large sample (128 children). The quiet (or shy) children obtained significantly lower scores than the verbal (non-shy) group on the expressive vocabulary test but there were no significant differences between the groups on the test of receptive vocabulary. Earlier, London and Sommers (1979) found that shy children performed poorly in both receptive and expressive vocabulary tests. Recently, Spere et al. (2004) found that temperamentally shy children obtained lower scores on a receptive test (PPVT) and an expressive test (Test of Auditory Analysis Skills) than their non-shy peers. Interestingly, another study by Spere (2004) on 20 shy and 20 non-shy junior kindergarten children revealed that shy children obtained lower scores than non-shy peers on receptive vocabulary test but they did not differ on an expressive vocabulary measure at school.

The present study included a receptive vocabulary test, and found that shy children obtained significantly lower scores than their non-shy peers, results similar to those reported by Crozier and Perkins (2002) and Spere et al. (2004). The study extends research to a sample of children in Saudi Arabia to show that the effect of shyness on the vocabulary is not specific to Western samples. Again, the finding of the study implies similarity between the Western concept of shyness and the Arabic language concept of *Khajal*.

It is important to point out that while shy children do not perform as well as non-shy children, they do not necessarily score below the population average on standardized tests of vocabulary. Rubin (1982b), for example, found that although withdrawn children obtained lower scores they were in line with average scores for their age whereas talkative children obtained scores higher than their age norms. Van Kleeck and Street (1982) also reported a similar result. Spere et al. (2004) recently assessed whether temperamentally shy and non-shy groups differed from their expected age level in scores on the PPVT-R. They found that the temperamentally shy group performed very close to their age level whereas the non-shy group obtained higher scores than their age norm. However, the standardized scores on the Peabody Picture Vocabulary Test reported by Evans (1996) showed a somewhat different result, that reticent, mixed, and verbal groups all performed very close to their age level.

In order to test whether the vocabulary scores of shy and non-shy children in the present study differed from their expected age level, the vocabulary scores were compared with test norms. While shy children performed very close to their age, exceeding their age level by roughly one month (mean difference = 1.12 months, $t(51) = 0.49$, $p = .63$), non-shy children performed higher than their age level by almost two years (mean difference = 21.04 months, $t(55) = 9.40$, $p < 0.001$).

The findings of this study replicate findings reported by Evans (1996) and Spere et al. (2004) and are consistent with the explanation that the difference is due to the superior test performance of non-shy children rather than deficits in shy children's performance.

The relatively high level of vocabulary scores gained by non-shy children may be due to the education level of the parents in the sample being high. The number of parents in the sample who had a high qualification was greater than those who had middle or low qualifications. This was because three preschool centres out of the eight taking part in the study were university preschool centres which were affiliated with the university and most of the children attending these centres were children of university staff members.

However, the high educational level of parents in this study suggests that participating children would have test scores well above their age average and it could be argued that shy children fail to reach the level that would be expected for them. Shy children did not do extremely well on the vocabulary test nor did they fall behind their age-expected norms. This pattern of results is consistent with Crozier's (1997) suggestion that shyness neither enhances nor impedes language development.

The design of the present study and of the studies undertaken by Evans (1996) and Spere et al. (2004) which compare extreme groups of shy and non-shy children has a similar limitation that is decisions cannot be made among competing interpretations whether the difference is due to superior performance of non-shy children or relatively poor performance of shy children. The only study that involved a representative sample of schools from two education authorities in the United Kingdom is reported by Crozier and Hostettler (2003). It compared shy children with a randomly selected sample of children from the same classes and found that shy children performed significantly less

well than the comparison group on a test of expressive vocabulary and on a national standardized language attainment test and they scored below the test norms for the national test: mean (and SD) standard scores of the comparison group was 100.58 (SD = 12.27, n = 91) and of the shy group was 96.53 (12.97, n = 87).

8.3.3 Results from “Show and Tell” Sessions

Previous studies of shy children’s interaction with unfamiliar peers that have been carried out in laboratory and classroom settings have found that shy children are more reticent than non-shy peers, and their shyness could influence different aspects of their language development in different natural contexts at school such as “Show and Tell” sessions which are intended to provide a natural context that allows the children to interact socially and verbally with the teacher and other children (Dodge & Colker, 1992).

The present study used “Show and Tell” sessions as a context to assess a set of features of the verbal behaviour of shy and non-shy children. Number of words and the number of utterances were used in previous studies (Evans, 1987; Crozier & Perkins, 2002) as indicators of differences that have been documented in both shy and non-shy children. Evans (1987) studied the interaction between reticent children and their peers in 15 “Show and Tell” sessions. Similar measures to the present study were taken including number of words, mean length of utterance (MLU), words volunteered, utterances volunteered, and number of teachers’ questions directed to the child. Evans (1987) found that reticent children obtained lower scores on all of these measures than their less shy peers. Although Evans measured some of these variables per-topic the child talked about, rather than per-session as the present study, the current study found results consistent with her study in all of these measures of language features.

Evans (1987) did not examine the effect of different sessions, whereas the current study sought to examine possible changes between “Show and Tell” sessions. The comparisons between sessions 1 and 2 revealed that the changes from session to session affected some features and did not affect others. Only the number of utterances, number of questions the child was asked and the frequency with which the child responds verbally were different in different sessions. This may be due to the children’s familiarity with each other, “Show and Tell” sessions, and with their teacher who asks them the questions. More studies need to address the factors that affect the verbal behaviour of shy children from one session to another.

Relating to the number of words, the results from “Show and Tell” sessions are consistent with results from several studies. Crozier and Perkins (2002) for example, found that shy primary school children obtained lower scores on a measure of the total number of words spoken than their less shy peers. Asendorpf and Meier (1993) also found that shy children spoke fewer words than non-shy children in school situations. Crozier, Rubin and Hastings (2003) provided additional evidence of shy children’s reticence; they found a significant correlation between measures of behavioural inhibition and reticence on a speech task and two activities in interaction with adult experimenters.

In addition, MLU has also been used in studies as an important differentiator between shy and non-shy children. Van Kleeck and Street (1982, p. 622) reported that

research on both normal and delayed language development frequently uses mean length of utterance (MLU) as an indicator of language development.

This study found that shy children produced shorter utterances than their non-shy peers, and this result replicates the findings from previous studies that found that

shy or reticent children spoke shorter utterances than talkative or non-shy peers in the class context (Van Kleeck & Street, 1982; Evans, 1987; Crozier & Perkins, 2002). The mean length of utterances for shy and non-shy children in the present study seems short (2.19 - 3.71 words for shy and non-shy children respectively) in session 1 and (2.29 - 3.60 words for shy and non-shy children respectively) in session 2 compared with that reported by other studies such as Evans (1987). This reflects a number of factors (1) the combination of words in the Arabic language differs from that in English, where phrases such as 'the car' (Alsiyarah, السيارة) is considered in Arabic as one word rather than two words as in English; (2) Looking at the transcript of children's talk shows that many of the utterances the child makes are very short responses to teachers' questions and the style of teachers' conversations with children in Saudi Arabia is very much formal 'questions and answer' and it is not one where the child talks a lot spontaneously.

Nevertheless, despite this form of interaction the shy children still spoke less than non-shy children and produced shorter MLU whereas non-shy children spoke more words and produced longer MLU, indicating that the non-shy children in the current study were more talkative and shy children were very reticent. This may be because when teachers selected shy and non-shy children they tended to choose the most talkative and the most reticent children.

In this study, there were no gender differences in shyness or vocabulary and there were few interaction effects involving shyness, gender and sessions.

A surprising result was that shy boys (but not shy girls), became more reticent from one session to another in terms of their score on MLU. Shy boys have longer MLU in the second session than shy girls, but the two genders do not differ in the first session. On the other hand, non-shy boys have longer MLU than non-shy girls in session 1, but they do not differ in session 2. Non-shy girls seem to be slower to 'warm up'. This may

be due to the differences from session to another between teachers in the way they asked children the questions in terms of listening to the child and allowing him or her to talk without interrupting him or her. Kerr (2000) reported a complex pattern of significant interactions involving gender and the onset of shyness in predicting adult psychological well-being and social relationships.

It is difficult to interpret this pattern of findings given gender differences in verbal behaviour and play as well as cultural variation in gender-related behaviour and must remain an issue for future research. Nevertheless, the interaction effects do not alter the overall pattern of findings.

In the pre-school classroom, shyness is associated with more frequent non-social play and less frequent verbal behaviour (Coplan, 2000, cited by Coplan & Prakash, 2003). These types of behaviour can induce unsatisfactory patterns of interaction with teachers (Evans, 1993). Coplan and Prakash (2003) for example, identified children who most frequently received initiations from teachers. Those children were rated as more shy and anxious by teacher and were observed to engage in more solitary play. Children and adults interpret quietness as evidence that a child is shy and this can lead to labelling of the child and expectancies for future behaviour. Moreover, this may provide teachers with cues that the child is in need of potential assistance and they may respond by asking the child more questions in conversation. Evans and Bienert (1992, cited by Crozier, 1997) suggested that shy children cause discomfort to their teachers because of their silence and short answers to questions and some teachers may react by asking yet more questions. Evans (1987) found that questions were more frequently directed to reticent children than to their peers. Furthermore, while less shy children responded to these questions as invitations to contribute further to the topic shy children did not do so. These results were not replicated in the present study, where the shyness status of

children did not affect the number of questions directed from teachers to children, although shy children responded less frequently to teachers' questions than did non-shy children, and they made more nonverbal responses and fewer verbal responses. On the other hand, although teachers asked them a similar number of questions non-shy children spoke more words in reply by using longer utterances than did shy children.

Crozier (1997, 2001b) argued that in interpreting the differences in language performance it is crucial to distinguish between competence and performance. This issue is raised in the present study when interpreting the differences between shy and non-shy children in their verbal behaviour in "Show and Tell" sessions. Does shy children's reticence in "Show and Tell" reflect their low competence in language skills (Evans, 1993), or is it due to their wariness in the conversation as they are required to make spoken responses to teachers' prompts and questions? In "Show and Tell" sessions in the present study the teachers asked children questions about objects and events that the children chose to talk about. It is unlikely that the questions were difficult and the children did not know the answers or were afraid of giving incorrect responses. In addition, teachers adopted an encouraging and friendly style. Nevertheless, shy children said fewer words and utterances and produced shorter utterances. This is consistent with the point made by Spere et al. (2004) who argued that reticence of shy children may be due to their shyness limiting their ability to express what they would say even when they had a high level of vocabulary. Shy children in this study did not have below-average vocabulary scores in terms of test norms. However, Spere (2004) examined whether previously observed language differences between two groups of shy and non-shy children are a product of performance anxiety that shy children experience in a formal testing situation at the school, and she found that even in a natural home environment, shy children spoke less than non-shy peers.

The results of this study indicate that shy children are less likely to be talkative. Observations made by Evans (1993) suggest that many shy, socially withdrawn and reticent children do not just talk less when they interact with others, but they differ in the nature of the interaction compared with their non-shy peers; they use their own strategies, that are similar to strategies that emerge early in their development. Evans (1993) described strategies reported in previous research including direct requests, nonverbal speech acts, talk about the here and now and making bids for attention. The present study examined some behaviours similar to these including not responding to teachers' questions and making nonverbal responses to teachers' questions. Shy children were more likely not to respond and to respond nonverbally to teachers' questions. However the high positive correlation between the number of teachers' questions and the number of verbal responses to teachers' questions shows that there was an answer for every question and indicated the children's tendency to respond to teachers' questions. This may be because the "Show and Tell" situation demands that a child responds to teachers' prompts and questions, even if only with one word. The correlation reflects demands of the situation; nevertheless, shy children responded with shorter utterances than their non-shy peers. Evans (1987) found that while talkative children interpreted questions as requests to talk more about their topic, reticent children tended to give minimal answers. Evans argued that questions only serve to restrain children from speaking by establishing question and answer routines. In addition, putting the child on the spot to answer a question may cause a degree of anxiety over giving an appropriate answer or giving an answer in front of other children.

In conclusion, the present study's findings from "Show and Tell" sessions revealed that shy children obtained significantly lower scores on all the verbal measures recorded. Indeed, inspection of means scores shows that the differences are striking.

8.3.4 Results from Free Play Sessions

This section discusses the results from the observation of several measures of children's verbal behaviour that occurred while children interacted verbally during the two free play sessions.

The most important result was that shy children were significantly less likely to talk with their peers. These results are consistent with those in Asendorpf and van Aken's (1994) study which reported that inhibition assessed at the age of four years when meeting an adult stranger correlated with a measure of inhibition derived from observation of peer interaction. Van Kleeck and Street's (1982) study, which observed the spontaneous talk of reticent and talkative children in free play interaction, found similar results with adult play partners. In this regard, Coplan et al. (1994) also found an association between children's shyness and their reticence (unoccupied and / or onlooking behaviour) during free play.

There are many studies of observed children's verbal behaviour during free play, but there are only a few studies that incorporate the set of variables investigated in the present study. Amongst these studies the methods of coding and observations of children's talk varied. Some studies coded and compared children's requests for different purposes during social interaction with peers or adults. Van Kleeck and Street (1982), for example, found that the two reticent girls made fewer requests for physical action to their adult playmates than did the two verbal girls; Rubin, Daniels-Beirness & Bream (1984) also observed a negative correlation between social withdrawal and the number of requests children made in play groups with same-sex school-mates. In addition, Rubin and Borwick (1984) found that isolated children made fewer requests to elicit a response, and fewer requests to acquire objects than did their playmates.

Evans (1993) reported that some studies paired shy children with unfamiliar peers and others paired them with unfamiliar adults, suggesting the possibility that inhibition with a non-preferred playmate might have contributed to their reticence. Coplan, Gavinski-Molina et al. (2001) and Rubin, Burgess, and Hastings (2002) have shown that shy children are more reticent during play in laboratory sessions with unfamiliar peers. Nevertheless, there exists some evidence of reticence with familiar peers: a study of dyadic interactions with familiar classmates conducted by Evans and Ellis (1992, cited by Evans, 1993) reported differences between shy and talkative grade-one children on measures of requests made to the other child in the dyad. Spere (2004) also found that shy children spoke less than non-shy peers in a conversation speech sample at home. The present study observed children's verbal behaviour during interaction with their peers in the classroom free play sessions. Children were free to play and talk with their classmates with whom they preferred to play. The results revealed that shy children remained quiet even though they were interacting with a group of familiar peers. While being the centre of attention in "Show and Tell" sessions can be problematic for shy children even when speaking in front of a group of familiar others, their reticence is also marked in the play sessions where the children were unobtrusively observed by the researcher and there were no extrinsic constraints imposed on who the child could interact with.

8.3.5 Shyness, Vocabulary, “Show and Tell” and Free Play

It has been suggested that better language skills may help shy children to develop more positive coping strategies (Evans, 1993; Asendorpf, 1994). Coplan and Armer (2005) examined the interactive relationships amongst shyness, vocabulary, and gender in the prediction of indices of social adjustment. They found that shy children with a high level of expressive vocabulary were better in their socioemotional adjustment than shy children with a lower level of expressive vocabulary. Asendorpf (1994) assessed the stability of inhibition of 71 children from age 4 to 10 years old; his study included a measure of the children’s verbal IQ. Asendorpf found that verbal intelligence predicted greater decrease in children’s inhibition over time. That is, inhibited children were more likely to remain inhibited if they had lower verbal IQ.

The current study examined the contribution of receptive vocabulary scores to predicting children’s verbal behaviour in “Show and Tell” and free play sessions. An important result emerged; vocabulary scores do not mediate between shyness and verbal behaviour. Shyness in the current study predicts verbal behaviour in these school settings over and above any differences between shy and non-shy children in vocabulary test scores. This result is consistent with Crozier and Perkins’ (2002) findings, particularly where measures of speech in an assessment situation were predicted from vocabulary scores and teacher ratings of children’s shyness.

Similar to the Coplan and Armer (2005) study that explored the interaction between shyness and vocabulary in the prediction of children’s social adjustment, multiple regression analyses were undertaken but for a different purpose. The goal of these analyses was to explore whether the variation in vocabulary test scores predict the verbal behaviour of children in “Show and Tell” and during free play sessions independently of their teachers’ shyness ratings, and also to test the interaction between

teachers' shyness ratings and children's vocabulary in predicting verbal behaviours. The analyses revealed that the variable of interest (the interaction between the variation in vocabulary test scores and teachers' ratings of the children's shyness) did not predict talkativeness in "Show and Tell" or number of silent intervals in free play. Moreover, the coefficients in paths analysis linking vocabulary and the observed verbal measures were close to zero (see Figure 7.13). In other words, the high level of vocabulary obtained by non-shy children and the average level of vocabulary of shy children did not help those children to be more talkative either in "Show and Tell" or in free play settings, where the situation was different as mentioned earlier. The failure to find that vocabulary had a mediating or moderator role does not replicate findings reported by Coplan and Armer (2005) and Asendorpf (1994). However, the nature of the outcome measures, methods and the conditions of the investigation in those studies are different. Several points could be noted related to Crozier's (1997) suggestion of the effect of anxiety of test performance. Coplan and Armer reported that they tested expressive vocabulary at the time when children had become more familiar with the interviewer, whereas the researcher in the present study was unfamiliar to the children and she conducted the vocabulary test by herself. In addition, the interview in Coplan and Armer's study took place in somewhat less stressful environment (a corner of the classroom during free play, with all other children and the teacher in the room) but the present researcher administered the vocabulary test in an isolated quiet room, which might have made the test situation more threatening. Furthermore, the current study was conducted in a shorter time (two sessions in two different occasions) whereas Coplan and Armer's research lasted for one year of pre-school and Asendorpf's study was a longitudinal one over several years. Moreover, the studies differ in the nature of the behaviours measured (children's verbal behaviour, ratings of socioemotional adjustment

and the temporal stability of shyness). Finally, the assessment of the verbal behaviour of the children in the present study employed a structured observation of free play and systematic measures in “Show and Tell” sessions. In contrast, Coplan and Armer’s study did not observe children’s social behaviour, instead it employed teachers’ ratings of children’s adjustment. In this regard, the expectations for the established theoretical and empirical links between aspects of language skills and the actual verbal behaviour of children may have created negative attributions for behaviours that have been rated by teachers.

Coplan, Gavinski-Molina, et al. (2001) found that teachers tend to identify shy children as having more academic difficulties but little empirical evidence exists on shy children’s school attainments (Evans, 2001). Rubin and Coplan (2004) reported evidence that shy, withdrawn children are at greater risk for internalizing problems than are non-shy children, but further research is needed to examine whether variation in vocabulary development is a factor that might make shy children more vulnerable or protect them from these problems. An alternative interpretation is that vocabulary test performance is an outcome of shyness, a further example of shy children’s quietness in social situations. Consistent with this, Crozier and Hostettler (2003) found that the difference between shy and less shy children in scores obtained in face to face testing was not evident when children undertook the same test in a group, writing their answers in the classroom. Spere et al. (2004) reported that being shy in itself does not cause a child difficulties in terms of linguistic skills; not all shy children are below average in their language skills (Coplan & Armer, 2005).

Asendorpf (1993a) argued that, because of underlying wariness, shy children do not engage in conversation with peers. Thus their performance on language skill tests may not reflect difficulties in language as much as a fear of talking. In addition, shy

children's quietness with familiar peers, taken together with findings that they contribute less in class may mean that they may not make the most effective use of learning opportunities.

Evans (1993) suggested that shy children who have enhanced language skills may be able to cope with their shyness better than shy children with poorer language skills. Thus, it is possible to help shy children to develop their language skills by spending more time in conversation with teachers and peers, as non-shy children have been found to do (Asendorpf & Meier, 1993). This has important implications that encouraging children to engage in active participation in conversation with teacher and peers and in social activities in school, home, and outside the home might enhance the development of their language, social skills and communication competence (Badawood, 1986; Brown & Palinscar, 1989; Schneider, 2000; Spere et al., 2004,). The present results have additional implications which are illustrated in the following section.

8.4 Implications

The findings of the present study have several theoretical and practical implications, some of which are similar to those reported by the study of Crozier and Perkins (2002). These findings include that shyness influences language test results and the verbal behaviour of children in social situations; therefore the researcher can conclude that an important implication is that the test performance of children could be affected by a specific reason of individual differences – which in this case is shyness – which neither teachers nor parents recognize. Crozier and Perkins (2002, p. 243) stated that

it is important to establish that there is a source of individual variation that influences children's test performance yet is not recognized by schools and teachers.

The present study also reported that Vocabulary scores are not associated with children's reticence in social situations independently of their shyness. This finding suggests that language skills do not appear to have a direct effect on the verbal behaviour of children or their test performance but shyness has a significant effect. Therefore, another important implication can be concluded that teachers should be aware of those students with poor language skills do not necessarily perform poorly in other achievement tests.

The present study along with those of Crozier and Perkins (2002) and Crozier and Hostettler (2003) provide teachers and educational experts with a caution that they should be aware that children's answers could be influenced by their shyness, and they should be careful in interpreting children's test scores. Crozier (1997, 2001a) argued that it is necessary to distinguish between competence and performance when interpreting differences in results of language tests, and to be aware of personality characteristics of children that might affect their test performance rather than their cognitive ability. Crozier provides an alternative explanation to the suggestion that shy children lack competence (Evans, 1993), suggesting that shyness is generated by the assessment situation, especially face-to-face testing. It is obvious from the present study and previous research findings that encounters with unfamiliar and evaluative situations are factors eliciting shyness in childhood, particularly when shyness is not necessarily a trait of the child. Test situations which involve both of these conditions are likely to elicit social anxiety. Shy children become unwilling to respond to the questions properly, they tend to become silent and slower to respond to questions as a result of

their fear of the embarrassment of making a mistake and being seen as foolish by the examiners, which results in their abilities being underestimated (Crozier, 2003).

Contemporary schools are increasingly relying on testing of young children as a method of assessment. In Saudi Arabia primary schools have tried to establish and emphasize effective methods to assess young children's abilities. However schools still rely on formal assessment including verbal tests to make decisions about children's progress and achievements. They use these tests as a tool to estimate and compare children's abilities for passing them from one grade to another in the final three years of primary school. Teachers and parents in Saudi Arabia complain of students who achieve high scores in cognitive tests administered in group settings where students are required to write answers on the answer sheet but at the same time these students gain low scores in measures derived from face-to-face testing and from measures on their participation in class discussions. Even if they are encouraged to respond and to be more active in the class room activities their shyness results in greater inhibition. This situation is also evident in university entrance examinations, where some students score high in written exams but they fail to enter the college of their choice as a result of their failure in passing the verbal examination (interview). There is an ongoing debate in Saudi Arabia about this issue among educational policy makers in all levels of education. This debate is more pronounced in higher education. There is an attempt to decide the proper way to estimate students' ability that is appropriate to the demands of the subject that they choose to study in university.

There has been no research conducted in Saudi Arabia into the impact of shyness on students' verbal behaviour in testing situations. The only study found in a literature search was one conducted by Al-Baker (1986) that did not find any significant relationship between the academic achievement of university students and their shyness.

Clearly this may be due to the university assessment methods relying on written group testing. In Saudi Arabia there is a need for research into temperamental or personality factors that influence the verbal behaviour of children in different test situations.

In addition, findings of the current study also provide preschool teachers in Saudi Arabia with answers to their questions about their children's shyness and why shy children talk less and do not participate in social activities with peers. The study provides teachers with information about the typical verbal behaviour of shy children in class room settings. This will help teachers become aware of their shy children's verbal behavioural characteristics and encourage them to develop sensitive ways to help shy children to contribute more to discussion and social activities. Furthermore, the findings imply that help should be offered to shy children in order to reduce the risk of later adjustment disorders that result from internalizing problems and difficulties of initiating and maintaining relationships that are implicated in shyness.

Research into shyness is also important in that it provides teachers with advice about how to help children in a sensitive way and not to force them into social interaction. Evans (2001) reviewed the literature and made several recommendations including grouping shy children in smaller groups with a less assertive teacher, as opposed to larger groups with a teacher leader, in order to encourage more varied and spontaneous dialogue. For example, a teacher could set up shy children with a small group of two to five children for activities in play centres; pair shy children with a buddy or peer helper; pair shy children in types of play such as card games in which children alternate speaking and listening roles. A further suggestion is based on the assumption that shy children can play more easily with younger children. Therefore, making the shy child the older 'buddy' can provide him or her with opportunities for a leadership role in a non-threatening way. However, because there are few studies testing

the effectiveness of such suggestions more research is needed to examine the value of different interventions. Al- Shanawani (1999) did not find any significant differences in children's shyness before and after a training programme based on story-telling to alleviate shyness. In contrast, another study in Saudi Arabia by Al-Ghalib (2002) tested a social skills training program and brief counselling to alleviate shyness in university students. She found that overall, social skills training is more effective. However this study was conducted on university students instead of children. More studies are needed in Saudi Arabia to suggest and test different types of interventions to help shy children cope with their shyness.

8.5 Study Limitations

The study had a number of possible limitations:

The children participating in the study came from a sample of private preschools centres including three preschools attached to the university, where the children's parents were university staff members and had high educational qualifications. This was a convenience sample rather than a representative sample of preschool children in Saudi Arabia and care would need to be taken in generalizing from the findings obtained from this sample.

The vocabulary test scores of the sample were high and above the standardized population mean of 100. In particular the mean scores of the non-shy sample were considerably higher than the standardization population mean. Presumably this reflects the educational background of the sample. Spere et al (2004) found a similar result in a study of Canadian middle class background children (22 temperamentally shy and 22 non-shy 4-year-old children). The children were selected from a large child database of children born at university medical centre who were responded to for temperamental shyness by maternal report. Non-shy children obtained scores higher than the test

standardization mean on both expressive and receptive language skills tests while the shy group obtained scores close to the mean. Nevertheless future research needed to replicate this study with a more representative sample of children in Saudi Arabia. It might be the case that vocabulary has a stronger relationship with children's verbal behaviour when there is wide range of vocabulary test scores in the sample and this would need to be tested.

The identification of children as shy and non-shy was undertaken in the present study by teachers. This method has been typical of previous research that studied the relationship between shyness and children's vocabulary. This approach has limitations. There may be sources of bias in teachers' selections that might influence the findings, where teachers might tend to identify children with some characteristics rather than with others. For example, they may be guided in their selection by their ideas of the children's intelligence. While teachers might have a clear idea of the nature of shyness, 'non-shyness' might be less clear and the reasons for their choice of children subject to bias. They might choose children who are very sociable or talkative and this might exaggerate the differences between shy and less shy children. The researcher provided teachers and parents with a standardized shyness checklist that has been used in previous research to check whether teachers had chosen children at the extreme non-shy end of the distribution. The distributions of the scores on teachers' shyness checklists showed that there is no spread of scores in the non-shy groups, where the largest number of children was in the extreme non-shy indicating that the teachers' ratings were influenced by their nomination of children as non-shy that might carry with it teachers' bias.

While the teachers selected the participating children and rated them on the shyness checklist all other measures were collected by the researcher, including the

vocabulary test which was administered individually by the researcher. This minimizes the influence of any teacher bias in measures other than those of shyness.

The study of children's verbal behaviour was limited to "Show and Tell" and free play settings. If this study had included different school settings such as playground time, or interactions outside school settings, such as at home and social situations outside the home, it would have added another dimension to the results. However, this would have required more resources and time than were available for this study.

There were additional difficulties faced by the researcher during the investigation, which may in some ways have affected the results of the study. This was while recording children's speech in "Show and Tell" sessions a number of parents were not co-operative, and did not encourage their children to bring objects to school. This resulted in the child frequently attending the school without bringing any object for the sessions. Subsequently, the teacher had to ask the child to talk about an alternative object such as a class activity, a school journey, or a toy at home. In this case, the child might be less interested in talking about such objects compared to those children who brought objects. This will produce "noise" in the results.

A noticeable drawback of the measures of the language development of children in "Show and Tell" and free play is that they represent only limited aspects of children's language development (the quantity of children's talk). The results would be enriched if the assessment included investigation of the quality of children's talk.

The present study tested whether shyness and vocabulary test scores predicted aspects of children's language in two natural preschool settings: "Show and Tell" and free play. It was found that shyness is the only factor that predicted children's behaviours in these settings. However, the design is essentially correlational and cannot establish the causal direction of relationships. Ratings of shyness might be based upon

teachers' observations of children's typical verbal behaviours. The findings can be related to previous research, for example, studies by Kagan and Rubin discussed in Chapter Four, which have followed samples of children from early infancy into the school years and have found that signs of early appearing shyness during observations in the laboratory predict subsequent reticence in social relationships and teacher and parent ratings of shyness. In practice, children who are perceived as shy by their teachers have a number of difficulties in social interaction and teachers should be aware to this, whatever the precise nature of the causal relationships.

The present study examined the effects of shyness and gender on the vocabulary and verbal behaviour in preschool children. This is because shyness is the principal focus of this study and in previous research gender has been shown to interact with both shyness and children's language development. The sample size ($n = 108$) prevented useful analysis of additional variables. The sample size took into account the large numbers of individual measures taken on each of the children, including recording children's talk in two "Show and Tell" sessions and videotaping the verbal behaviour of each individual child during two free play sessions. The study sample would not be large enough to include further variables. Other variables are of interest, for example, the children attended different schools and were rated by different teachers and it would be valuable for future research to examine possible school and teacher effects. Regarding socioeconomic status the sample was relatively homogenous and this could not be investigated in this study.

Measures of the children's intelligence were not made or collected from the schools. This was because preschool centres do not routinely measure children's intelligence, and the researcher had not enough time to measure this variable because of the limited time set for the field work in Saudi Arabia.

Standardized vocabulary tests are often taken as measures of intelligence. In the present study a possible confounding factor is that children's verbal behaviour in the classroom was influenced by intelligence rather than vocabulary. However, the study found that vocabulary did not influence the verbal behaviour of children over and above their shyness. Previous research by Evans (1996) with a sample of Canadian children included a measure of intelligence and found a significant difference in vocabulary between shy and not-shy children but no difference in intelligence.

The present study also depended on observational approaches. Observational measures only count the frequency of intervals when the child talks and / or does not talk and fail to capture the quality of the interaction.

8.6 Recommendations

This study's results indicate the need for further research in several areas related to the study topic. The effect of shyness on the language development of shy children in Saudi Arabia is clearly seen by their vocabulary test performance and verbal behaviour in school settings. The following are suggestions for further research:

- Children's age in the study is limited to ages between 5 and 6 years. Further research is needed to study the effect of shyness on children's language development at different ages.
- Testing a larger sample that is representative of the whole country.
- Collecting data from samples representing all socio-economic status groups.
- Follow-up research is needed for the children in the sample in this study in their later years, to look at long lasting effect of shyness on their language development.

- Shyness showed significant effects on the vocabulary test and the verbal behaviour of shy children, other aspects of language development also need to be tested such as the qualitative differences between shy children's and non-shy children's speech and language skills.
- The effect of shyness on children's verbal behaviour needs to be observed in different settings such as lessons, playground, and home settings in further studies.
- The interaction between shyness and gender did not show any influence on vocabulary or verbal behaviour. Further study of child gender roles is required in terms of the cultural, differential implications and outcomes of shyness in both boys and girls at different ages and social settings.
- Receptive vocabulary testing was used in the present study and showed differences between shy and non-shy children. Expressive vocabulary tests are also an important type of test. Both types of vocabulary tests are recommended for further research.
- Evidence reported in Crozier and Hostettler's (2003) study showed that shyness influences children's cognitive tests and has a large impact when children are tested in face-to-face conditions. It is useful to replicate this study in Saudi Arabia in order to clarify for teachers and policy makers the role of testing conditions when assessing shy children's ability, making decisions about children, or judging teaching quality.
- Further research is needed to investigate ways of teaching or styles of teacher-children interaction that help children to overcome their shyness or develop effective coping strategies.

- Helping teachers and parents to set social development goals for their shy children and provide them with training in how to help children in a sensitive way.
- Minimize stress, embarrassment and punishment of shy children and establish an atmosphere where it is clearly acceptable to make mistakes.

8.7 Strength of the Study

This study adds to a growing body of literature. The study findings reinforce the importance of the influence that shyness has on language development. There have been many studies concerned with the relationship between shyness and vocabulary scores; other studies investigated the relationship between shyness and the verbal behaviour of children in natural settings. Moreover, some studies looked into the effect of shyness on children's free play. All these studies found significant correlations between these measures. Hence, the major contribution of the present study to existing research is that it is the first study that has examined the three relationships in one study simultaneously. In addition, it has also employed a predictive approach which has sought to ascertain the contribution of the vocabulary scores to predicting the verbal behaviour of children in both natural school settings and class room free play. The study provides evidence from a non-western culture about the importance of the effect that shyness has on children's language development.

There is scarcely any research into the influence that these language differences might have on children's social behaviour in the classroom.

The study also provides evidence to the similarity of the shyness concept in Arabic and English language which results from the consistency between teachers' ratings of their children's shyness and both teachers and parents shyness checklists.

The present study is the first measure concerned with the characteristics of shy preschoolers in Saudi Arabia. Extensive systematic measures of children's speech in "Show and Tell" sessions were made, together with an extensive observation of the verbal behaviour of children during class room free play. In addition, there is not, to the researcher's knowledge, research that measures the vocabulary of shy children in Saudi Arabia.

Finally, it is a serious comparative study which has sought to determine the influences of shyness (as an individual differences factor) that could affect children's test performance, a factor which is not known yet by the teachers and policy makers.

8.8 Conclusion

In conclusion, this study found that shyness in a sample of 5-6 year old Saudi Arabian children is associated with lower scores on a standardized test of receptive vocabulary and with greater reticence in classroom activities and free play in pre-school. Vocabulary does not mediate or moderate the relations between shyness and observed verbal behaviours. Further research is needed to explore why shy children perform less well on tests than do their less shy peers and should examine the long-term implications of depressed vocabulary scores and reticence for children's school attainments and adjustment.

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Appendixes

Appendix 1

Teachers' Shyness Checklist

Dear Teacher

Below you will find a shyness checklist please rate each of the items for the child by placing a check mark (✓) under the scale which is best describes your child.

Child's Name (Optional) SchoolClassroom

Scale Items	Very Characteristic	Mostly Characteristic	Moderately Characteristic	Somewhat Characteristic	Not Characteristic
Child Tends to be Shy.					
Child Makes Friends Easily.					
Child is Very Sociable.					
Child Takes a Long Time to Warm up to Strangers.					
Child is Very Friendly with Strangers.					
Child Volunteers Information in Class.					
Child Volunteers to Answer Questions Directed to the Class.					
Child Speaks Using Short Utterances.					
Child Asks for Help When Needed.					

Teacher Name:

Appendix 2

The Arabic Translation of Teachers' Shyness Checklist

قائمة تقييم الخجل عند الاطفال (للمعلمين)

المعلمة الفاضلة:

القائمة التالية هي لتقييم مظاهر الخجل عند الطفل في تفاعله الإجتماعي. الرجاء منك وضع علامة (✓) أمام التقييم الذي ترين انه ينطبق على الطفل أو الطفلة في كل صفة من الصفات الآتية:

أسم الطفل: (اختياري) الروضة: الفصل:

الصفة	درجة وجود الصفة عند الطفل	دائماً توجد فيه هذه الصفة	في أغلب الأحيان	بشكل متوسط	في قليل من الأحيان	لا توجد فيه هذه الصفة
(١) يميل الطفل لأن يكون خجولاً.						
(٢) يكون الطفل أصدقائه بسهولة.						
(٣) الطفل إجتماعي جداً.						
(٤) يحتاج الطفل وقتاً طويلاً حتى يتعود على (يألف) الناس الغرباء (من الصغار و الكبار)						
(٥) الطفل لطيف جداً مع الأشخاص الغرباء. (من الصغار و الكبار)						
(٦) يتبرع الطفل بتقديم معلومات للفصل.						
(٧) يتبرع الطفل بالإجابة على الأسئلة الموجهة للفصل.						
(٨) يستخدم الطفل عبارات قصيرة في كلامه.						
(٩) يطلب الطفل المساعدة عندما يحتاجها.						

معلمة الفصل:

Appendix 3

The English Translation of the Request Letter to Children's Parents

Request Letter

Dear Parents

The present research aims to investigate the relationship between shyness and language development of (5-6) year old children. I would like to inform you that your child has been chosen to be a participant in the current study. The vocabulary of your child will be tested and he/she will be videotaped during free play sessions and his/her conversations will be recorded.

In front of you is a questionnaire relating to demographic information about your child and a parents' shyness checklist.

All information provided by you will be used solely for the purpose of scientific research and only the researcher will examine it.

If you consent to include your child in the study please complete the attached questionnaire and shyness checklist.

If you need any more information please contact me on the following phone number:

Thank you for your co-operation.

Yours sincerely

The Researcher:

The agreement form:

Child's name: (Optional)

Agree ☐

Do not agree ☐

Appendix 4

The Request Letter for the Parents of Children in Arabic

بسم الله الرحمن الرحيم

المحترمين

الوالد الفاضل / الوالدة الفاضلة

السلام عليكم ورحمة الله وبركاته ... وبعد:

نظرا لقيامنا بتنفيذ بحث لمحاولة التعرف على العلاقة بين الخجل والنمو اللغوي للأطفال في عمر 5 – 6 سنوات ... يسرني ان ابلاغكم ان ابنكم / ابنتكم من المرشحين ليكون احد افراد عينة البحث.

والاستبانة التي بين ايديكم هي وسيلة لجمع بعض المعلومات العامة والخاصة عن الطفل او الطفلة والتي ستساعد على اتمام البحث.

لذا ارجو التكرم بمساعدتي عن طريق الاجابة مشكورين على جميع الاسئلة المقدمة، علما بأن جميع المعلومات المتحصل عليها ستحفظ في سرية تامة أثناء استخدامها في البحث. ولكم جزيل الشكر والتقدير على حسن تعاونكم وخدمتكم للبحث العلمي.

والله الموفق

الباحثة

لمزيد من المعلومات يرجى الاتصال بالتلفون التالي:
نموذج الموافقة:

اسم الطفل أو الطفلة: (إختياري)

☐ أوافق

☐ لا أوافق

Appendix 5

Parents' Shyness Checklist

Dear Parents

Below you will find a shyness checklist please rate each of the items for your child by placing a check mark (✓) under the scale which is best describes your child.

Child's Name (Optional) SchoolClassroom

Scale Items	Very Characteristic	Mostly Characteristic	Moderately Characteristic	Somewhat Characteristic	Not Characteristic
Child Tends to be Shy					
Child Makes Friends Easily					
Child is Very Sociable					
Child Takes a Long Time to Warm up to Strangers					
Child is Very Friendly with Strangers					

Appendix 6

The Arabic Translation of the Parents' Shyness Checklist

(٢) قائمة تقييم الخجل عند الاطفال (للوالدين)

الوالد الفاضل / الولدة الفاضلة:

القائمة التالية هي لتقييم مظاهر الخجل عند الطفل في تفاعله الاجتماعي. الرجاء منك وضع علامة (✓) أمام التقييم الذي ترين انه ينطبق على الطفل أو الطفلة في كل صفة من الصفات الآتية:

أسم الطفل: (اختياري) الروضة: الفصل:

الصفة	درجة وجود الصفة عند الطفل	دائماً توجد فيه هذه الصفة	في أغلب الأحيان	بشكل متوسط	في قليل من الأحيان	لا توجد فيه هذه الصفة
(١) يميل الطفل لأن يكون خجولاً.						
(٢) يكون الطفل أصدقائه بسهولة.						
(٣) الطفل إجتماعي جداً.						
(٤) يحتاج الطفل وقتاً طويلاً حتى يتعود على (يألف) الناس الغرباء (من الصغار و الكبار)						
(٥) الطفل لطيف جداً مع الأشخاص الغرباء. (من الصغار و الكبار)						

Appendix 7

The English Translation of the Child Background Questionnaire

Child Background Questionnaire

Child Demographic

- 1- Child's name(Optional)
- 2- School name
- 3- Classroom
- 4- Date of birth.....
- 5- Number of child's brothers and sisters.....
- 6- Child order.....
- 7- Child has been in kindergarten: (number of years spent in kindergarten)
 - ☐ Less than one year
 - ☐ From one year to less than two years
 - ☐ Two years and more

Please place a check mark (✓) in the front of the appropriate item.

8- Father's education (last certification)

- ☐ Literate
- ☐ Elementary school
- ☐ Intermediate school
- ☐ Secondary school
- ☐ Diploma
- ☐ Degree
- ☐ Post-Graduate

9- Mother education (last certification)

- ☐ Literate
- ☐ Elementary school
- ☐ Intermediate school
- ☐ Secondary school
- ☐ Diploma
- ☐ Degree
- ☐ Post-Graduate

10- Father's occupation

- ☐ Public sector
- ☐ Private sector
- ☐ Teacher
- ☐ Staff member
- ☐ Doctor
- ☐ Technician
- ☐ Businessman
- ☐ Trader
- ☐ Military
- ☐ Other, (specify).....

11- Mother's occupation

- ☐ Public sector
- ☐ Private sector
- ☐ Teacher
- ☐ Staff member
- ☐ Doctor
- ☐ Technician
- ☐ Businesswomen
- ☐ Housewife
- ☐ Other, (specify).....

12- Family income (including father's salary + mother's salary + other income)

- | | |
|---|---|
| <input type="checkbox"/> less than 2000 SR | <input type="checkbox"/> from 2000 to 5000 SR |
| <input type="checkbox"/> from 6000 to 10,000 SR | <input type="checkbox"/> from 11,000 to 15,000 SR |
| <input type="checkbox"/> from 16,000 to 20,000 SR | <input type="checkbox"/> more than 20,000 SR |

Appendix 8

The Child Background Questionnaire in Arabic

(١) معلومات عن الخلفية الأسرية للطفل او الطفلة

- ١- اسم الطفل او الطفلة:
- ٢- اسم الروضة: الفصل:
- ٣- تاريخ ميلاد الطفل او الطفلة: بالهجري:
بالميلادي ان امكن:
- ٤- عدد أخوة الطفل واخواته:
- ٥- ترتيب الطفل بين اخوته واخواته:
- ٦- عدد السنوات التي قضاها الطفل / الطفلة في الروضة:
☐ اقل من سنة ☐ من سنة الى سنتين ☐ سنتان فأكثر

الرجاء وضع علامة (✓) في المربع المناسب

- ٧- المستوى التعليمي للاب او ولي الامر:
☐ يقرأ ويكتب. ☐ الشهادة الابتدائية. ☐ الشهادة المتوسطة. ☐ الشهادة الثانوية او ما يعادلها. ☐ شهادة الدبلوم. ☐ الشهادة الجامعية. ☐ اعلى من الجامعية.
- ٩- المستوى التعليمي للأم او من يقوم مقامها:
☐ تقرأ وتكتب. ☐ الشهادة الابتدائية. ☐ الشهادة المتوسطة. ☐ الشهادة الثانوية او ما يعادلها. ☐ شهادة الدبلوم. ☐ الشهادة الجامعية. ☐ اعلى من الجامعية.

- ٨- عمل الاب او ولي الامر:
☐ موظف حكومي، في المرتبة: ☐ موظف غير حكومي. ☐ مدرس. ☐ أستاذ جامعي. ☐ طبيب. ☐ فني. ☐ رجل أعمال أو مقاول. ☐ صاحب متجر. ☐ عسكري. ☐ مهنة أخرى، ماهي؟
- ١٠- عمل الأم:
☐ موظفة حكومية، في المرتبة: ☐ موظفة غير حكومية. ☐ مدرسة. ☐ أستاذة جامعية. ☐ طبيبة. ☐ فنية. ☐ سيدة أعمال. ☐ ربة منزل. ☐ مهنة أخرى. ☐ ماهي؟

- ١١- دخل الأسرة (يشمل راتب الأب + راتب الأم + أي مصادر أخرى)
☐ اقل من ٢,٠٠٠ ريال. ☐ من ٢,٠٠٠ ريال الى ٥,٠٠٠ ريال. ☐ من ٦,٠٠٠ ريال الى ١٠,٠٠٠ ريال. ☐ من ١١,٠٠٠ ريال الى ١٥,٠٠٠ ريال. ☐ من ١٦,٠٠٠ ريال الى ٢٠,٠٠٠ ريال. ☐ أكثر من ٢٠,٠٠٠ ريال

Appendix 9

Play Observation Schedule

Classroom Play Observation Session No. ()

No.	I D. No.	Intervals	1	2	3	4	5	6	7	8	9	10	11	12
		Child Name												
1														
2														
3														
4														
5														
6														
7														
8														
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22														
23														
24														
25														
26														
27														
28														
29														
30														

0 = No Talk

1 = Responds to a Child Talk

2 = Initiates a Conversation

3 = Both Initiates and Responds

4 = Child Speaks Type of Talk is Unknown

5 = Unknown which Child is Talking

Appendix 10

The Arabic Picture Vocabulary Test: Performance Record

تطبيق فقرات الاختبار:

القاعدي: أعلى ثماني مفردات متتالية.

السفلي: أدنى ثماني مفردات متتالية تحتوي على ست مفردات خاطئة.

بدء الاختبار: بالنسبة للأطفال متوسطي القدرة، حدد عمر الطفل كما هو مبين في الهامش إلى يمين أرقام الفقرات. ابدأ الاختبار من الفقرة التي تقع أمام العمر.

تسجيل الإجابات والأخطاء: اكتب رقم الإجابة التي يتكرها الطفل أو يشير إليها وذلك في المكان المخصص لها في هذا الكراس. إذا كانت الإجابة خاطئة صمغ خطأ مائلا عليها.

حساب الدرجة الخام: سجل في مربع حساب الدرجة الخام آخر مفردة وصل إليها الطفل (آخر مفردة في أدنى سقف). احسب عدد الأخطاء التي وقع فيها الطفل ثم سجل هذا العدد في خانة عدد الأخطاء. اطرح عدد الأخطاء من رقم آخر مفردة تكون هي الدرجة الخام للطفل.

• تحسب جميع الأخطاء التي تقع بين أعلى قاعدي وأدنى سقف.

حساب الدرجة الخام
آخر مفردة
عدد الأخطاء •
الدرجة الخام



مؤسسة الكويت للتقدم العلمي

6



اختبار المفردات الصورية

(كراس تسجيل الإجابات)

مقرر رجاء مصمود لودع
إعداد
مفتحة لوزية عيسى هادي

الاسم:
الدرجة:
المنطقة للتطبيق:

الجنس: ذكر أنثى
العمر:
الأخصائي النفسي:

بيانات العمر وتاريخ إجراء الاختبار		تاريخ الاختبار	
العمر الزمني	تاريخ الميلاد	يوم	شهر

المفردات للتربية:

الدرجة	الكلمة	الكلمة	الكلمة	الكلمة
أ	ساعة (1)	خاتم (2)	البذلة من (4)	البذلة ع (3)
ب	شجرة (2)	فلانة (3)	ورقة (4)	غيب (1)
ج	نمط (2)	نصوب (1)	نركب (3)	نكي (4)
د	لن (2)	استيع (4)	لنف (3)	كف (1)

ملاحظات:

.....

.....

.....

.....

المفردات

اللوحه	المفردة	المفتاح	الاجابة
١	كروى	3	
٢	تضاح	4	
٣	ينام	1	
٤	دائري	2	
٥	اشعاف	3	
٦	بطريق	1	
٧	يسخب	4	
٨	سهم	2	
٩	بطني	4	
١٠	اشطواني	2	
١١	مقترس	1	
١٢	طرف	2	
١٣	ميزان	4	
١٤	نظام	4	
١٥	فنجان	4	
١٦	شلال	3	
١٧	مزعوب	1	
١٨	سداسي	1	
١٩	زاحف	3	
٢٠	تفطيط	1	
٢١	نودع	3	
٢٢	تقطر	1	
٢٣	جزيرة	4	
٢٤	ضمن	3	
٢٥	زاوية	2	
٢٦	خارج	3	

اللوحه	المفردة	المفتاح	الاجابة
٢٧	نوم	2	
٢٨	خماسي	4	
٢٩	مغارة	4	
٣٠	ينمل	3	
٣١	مقروش	3	
٣٢	يتكدي	1	
٣٣	يتقصص	1	
٣٤	متفلق	2	
٣٥	يقذف	1	
٣٦	نزوي	1	
٣٧	لقع	2	
٣٨	نودع	2	
٣٩	يتكزجج	2	
٤٠	يتغطي	1	
٤١	شبهة	1	
٤٢	محققة	1	
٤٣	مذهبه	3	
٤٤	جبهة	1	
٤٥	يريق	4	
٤٦	فراه	4	
٤٧	ينتمي	1	
٤٨	نرم	3	
٤٩	يتهاك	4	
٥٠	يتبارى	1	
٥١	ينصف	1	
٥٢	مجهز	3	

2

المفردات

اللوحه	المفردة	المفتاح	الاجابة
٥٣	يوتلم	2	
٥٤	نوزان	3	
٥٥	يقب	2	
٥٦	وترى	2	
٥٧	يوسلي	2	
٥٨	غواه	1	
٥٩	يلوح	1	
٦٠	سكاه	2	
٦١	ينسكب	4	
٦٢	اصل	4	
٦٣	جهم	1	
٦٤	نوروس	1	
٦٥	زوي	3	
٦٦	ينظر	1	
٦٧	ينقل	2	
٦٨	ساحل	2	
٦٩	نحزول	1	
٧٠	ينسج	4	
٧١	ينخن	3	
٧٢	نحرف	4	
٧٣	موقات	4	
٧٤	ملاحي	4	
٧٥	ينظن	3	
٧٦	يوق	2	
٧٧	يقتز	2	
٧٨	وابع	4	

اللوحه	المفردة	المفتاح	الاجابة
٧٩	قصبة	2	
٨٠	ينضج	4	
٨١	ينضص	4	
٨٢	يزعب	2	
٨٣	جمن	3	
٨٤	مقلب	4	
٨٥	منبور	4	
٨٦	كاثب	2	
٨٧	خفاق	1	
٨٨	فاخر	1	
٨٩	مخيط	3	
٩٠	شكل	1	
٩١	ينقصن	1	
٩٢	جزل	3	
٩٣	ظني	1	
٩٤	مننوع	4	
٩٥	ينحف	3	
٩٦	يزار	3	
٩٧	ينقبس	3	
٩٨	مسنن	3	
٩٩	عقار	3	
١٠٠	زسغ	2	
١٠١	واقعة	4	
١٠٢	رقعة	1	
١٠٣	يتناقب	4	
١٠٤	أرقل	3	

3

